

NOMINAL LUMENS	DELIVERED LUMENS	WATTAGE
2000	1949	20.9 W
1500	1600	18 W
1200	1315	13.7 W
900	1082	10 W

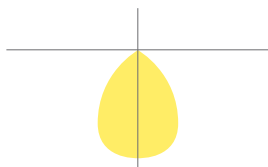
Delivered lumen varies base on trim and distribution options.
Based on 4000K, 90+ CRI. Actual wattage may vary +/- 5%

FEATURES

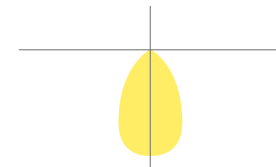
The Fusion A4-Led is a versatile, high-performance 3" LED universal downlight. It is compatible with round and square trims or can be ordered trimless. It is designed for New Construction installation in both IC and non IC applications. Due to the full adjustability of the A4 downlight, it can be utilized for recessed directional, accent, wet location shower, and downlighting. The Fusion A4 series is ideal for bringing radiant, consistent, and dimmable illumination to retail, hospitality, commercial, and high-end residential applications. For the benefit of environmental sustainability, the A4 also features an eco-friendly 70% lumen maintenance at 1000,000 hours life.

LUMENS	900, 1200, 1500, 2000 (Custom lumen packages available)
CCT & DYNAMIC PLATFORMS	27K, 30K, 35K, 40K, 50K Dims to Warm
CRI	90+ Standard
COLOR QUALITY	2-Step MacAdam Ellipse
DISTRIBUTIONS	ND-Narrow (25°) MD-Medium (35°) WD-Wide (55°)
TRIM OPTIONS	Trim, Trimless, Baffle, and Wall Wash, Adjustable
REFLECTOR COLORS	WH (White), SN(Sating Nickel), CL (Clear), BK (Black)
FLANGE COLORS	WH (White), SN(Sating Nickel), DBZ (Dark Bronze), BK (Black)
DIMMING	0-10V Flicker Free 1% Dimming Standard (DIM10), LUTH, LUTFTB, LUT2W, ELDO10.1, ELDODMX.1, ELDODALI.1, DIMTR
EMERGENCY	10W - Bodine BSL310 20W - Bodine BSL20
LIFETIME	L70 at 100,000 Hours
PHOTOMETRIC TESTS	In accordance with IES LM79-08, LM80 and TM-30, TM-21

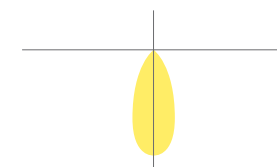
WD: WIDE 55°
Candlepower Distribution Curve



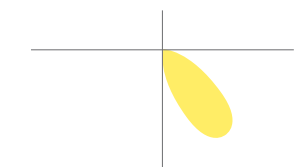
MD: MEDIUM 35°
Candlepower Distribution Curve



ND: NARROW 25°
Candlepower Distribution Curve



WALL WASH
Candlepower Distribution Curve



Reference IES files for additional distribution curve information.

CONSTRUCTION:

Thermally protected, specification grade adjustable recessed housing, suitable for new construction insulated ceilings where housing will be in direct contact with insulation. Die-formed, all-aluminum construction is painted matte black for maximum heat dissipation, rust protection, and glare free illumination.

COLLAR BRACKET:

Adjusts vertically and can accommodate any ceiling from 1/2" up to 1" thickness. Please consult factory for custom or thicker ceiling applications. Integral laser beam slots allow the use of guide strings or leveling laser guns to ensure that all luminaires are installed in a level and straight plane.

OPTICS:

High color rendering of 90+ CRI and guaranteed color consistency with a binning of a 2-step MacAdam Ellipse Scale. Available in: 2700K, 3000K, 3500K, 4000K and 5000K CCT. Also available in Dims to Warm (from 1800K to 3000K). A4 offers a narrow (ND) medium(MD) and Wide (WD)distribution options to achieve any prescribed design.

MOUNTING:

Flanged or trimless recessed mounting available. Pre-installed bar hangers allow housing to be positioned and locked at any point within a 24 joist span. They can be positioned on either the long or short axis of the housing and can be shortened for 12" joists. They contain a double-headed real nail for secure attachment into the joist. Bar hanger nails are installed on a 20° downward angle for better contact, and the 90° pivoting mounting plate makes installation fast and accurate. Bar hangers can fit onto TBar spline with additional slots and holes for special mounting methods if necessary. Butterfly brackets are also available and are constructed from 18-gauge steel and can be adjusted vertically. Brackets may be installed with 3/4" or 1-1/2"lathing channel, 1/2" EMT. Optional C-Channel mounting bars are available.

LED DYNAMIC PLATFORM OPTIONS



Dims to Warm with Smart Dimming Technology. At 100% full brightness the luminaire is at 3000K. When dimmed to 1%, the light transitions to 1800K, creating a warm ambiance within the space.

DIMMING & DRIVER INFORMATION

DIM10 - Flicker Free 1% Dimming Standard (DIM10) 0-10V dimming on either MVOLT 120, 277 or 347V.

LUT2W - Lutron LTEA2W Hi-Lume 1%. 2-wire LED driver (120V forward phase only).

LUTH - Lutron LDE1 Hi-Lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology.

ELDO10.1 - EldoLED SoloDrive 0-10V. Dimming down to 0.1%.

DALI - DALI DT6, DT8 dimming down to 1%.

ELDODMX - EldoLED PowerDrive dimming down to 0.1%.

Please see EldoLED website for wiring diagrams and a list of compatible DMX and DALI control systems.

DIMST - Step Dimming

DRIVER ELECTRICAL INFORMATION:

High junction box and driver can be accessed from below the ceiling and above the ceiling. Junction box is Listed for through branch circuit wiring, 18 AWG 90° C supply Conductors, and has four 1/2" knockouts, one 3/4" knockouts and four Romex knockouts with true pry-out slots and strain clamps.

LABELS:

- c-UL-us listed for damp location.
- c-UL-us listed for feed Through Wiring.
- c-UL-us listed for direct contact with insulation.

WARRANTY:

5-year warranty for parts and components (labor not included).

HOUSING

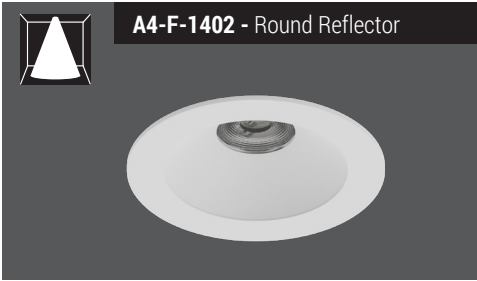
	TYPE	LUMEN	DIMMING	VOLTAGE	EMERGENCY OPTIONS	MOUNTING OPTIONS
HIGH PERFORMANCE	A4-LED	<input type="checkbox"/> 900L <input type="checkbox"/> 1200L <input type="checkbox"/> 1500L <input type="checkbox"/> 2000L	<input type="checkbox"/> DIM10 <input type="checkbox"/> DIMTR <input type="checkbox"/> LUTH <input type="checkbox"/> LUT2W <input type="checkbox"/> ELDO10.1 <input type="checkbox"/> DALI .1	<input type="checkbox"/> 120 <input type="checkbox"/> 277 <input type="checkbox"/> 347 <input type="checkbox"/> MVOLT (DIM10 only)	<input type="checkbox"/> EMG-LED Typical lumen output of the fixture is up to 1000L in emergency mode. Contact the factory for details.	<input type="checkbox"/> Blank-Standard bar hangers (included) <input type="checkbox"/> BP31 - 27" C-channel bar hangers. <input type="checkbox"/> RIF - RIF filter.
	A4-LED-IC	<input type="checkbox"/> 900L	<input type="checkbox"/> ELDODMX .1			

TRIM OPTIONS

ROUND TRIM	LUMENS	OPTICS	CCT	FINISH
<input type="checkbox"/> A4-F-1402 (Reflector trim) <input type="checkbox"/> A4-F-1401 (Baffle trim) <input type="checkbox"/> A4-F-1463 (Adjustable wall wash) <input type="checkbox"/> A4-TL-1402 (Trimless reflector) <input type="checkbox"/> A4-TL-1463 (Adjustable Trimless)	<input type="checkbox"/> 900L <input type="checkbox"/> 1200L <input type="checkbox"/> 1500L <input type="checkbox"/> 2000L	<input type="checkbox"/> ND(25°) <input type="checkbox"/> MD(35°) <input type="checkbox"/> WD(55°)	<input type="checkbox"/> 27K-90 <input type="checkbox"/> 30K-90 <input type="checkbox"/> 35K-90 <input type="checkbox"/> 40K-90 <input type="checkbox"/> 50K-85	<input type="checkbox"/> W-WH <input type="checkbox"/> SN-SN <input type="checkbox"/> CL-WH <input type="checkbox"/> BK-BK
SQUARE TRIM				
<input type="checkbox"/> A4-F-1498 (Reflector Trim) <input type="checkbox"/> A4-F-1497 (Adjustable Trim) <input type="checkbox"/> A4-TL-1498 (Trimless Reflector) <input type="checkbox"/> A4-F-1496 (Baffle)	<input type="checkbox"/> 900L <input type="checkbox"/> 1200L <input type="checkbox"/> 1500L <input type="checkbox"/> 2000L	<input type="checkbox"/> ND(25°) <input type="checkbox"/> MD(35°) <input type="checkbox"/> WD(55°)	<input type="checkbox"/> 27K-90 <input type="checkbox"/> 30K-90 <input type="checkbox"/> 35K-90 <input type="checkbox"/> 40K-90 <input type="checkbox"/> 50K-85	TRIM <input type="checkbox"/> W-WH <input type="checkbox"/> SN-SN <input type="checkbox"/> CL-WH <input type="checkbox"/> BK-BK <input type="checkbox"/> SI-WH
TRIMLESS				
				<input type="checkbox"/> WH <input type="checkbox"/> SN <input type="checkbox"/> CL <input type="checkbox"/> BK

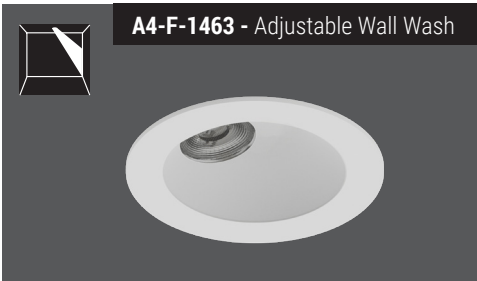
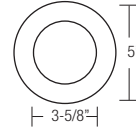
W-WH(White-White), SN-SN(Satin Nickel-Satin Nickel), CL-WH(Clear-White) BK-BK(Black-Black), SI-WH(Silver-White)

Round Flanged Trims

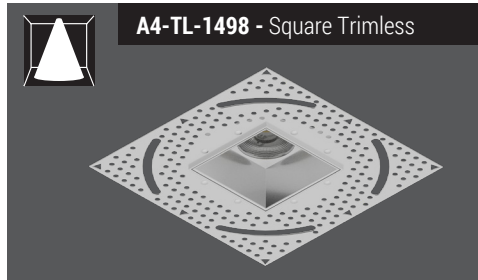
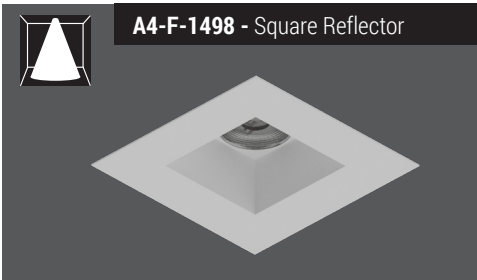


TRIM OPTION:

Post painted powder coated die cast trim available in white and custom colors. Please consult factory for custom paint color options. Trims attach to the housing with piano springs for snug fit and zero light leakage.

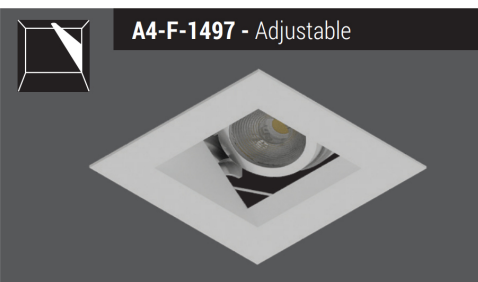
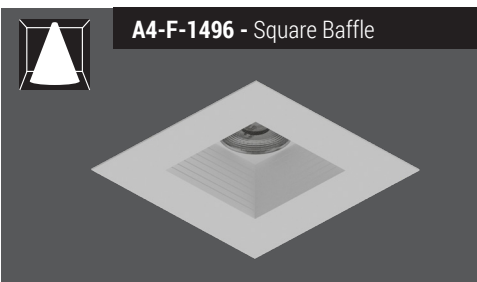
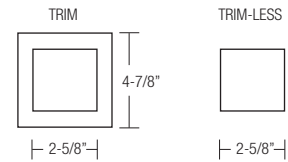


Square Flanged Trims and Trimless



TRIM OPTION:

Post painted powder coated die cast trim available in white and custom colors. Please consult factory for custom paint color options. Trims attach to the housing with piano springs for snug fit and zero light leakage.

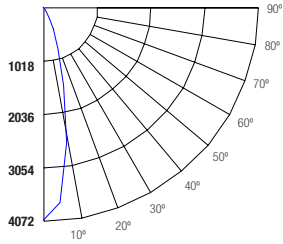


A4-LED-900L-ND-DIMTR-40K-85-A4-F-1402

TEST NO.: **EL0718123**

INPUT WATTS: **9.9** LUMENS: **1009** CRI: **85** EFFICACY: **102** CCT: **4000K** SPACING CRITERIA: **0.44**

Candle Power Distribution (Candelas)



Cone of Light		
4.0	14.1 fc	7.1 ft
8.0	3.52 fc	14.3 ft
12.0	1.57 fc	21.4 ft
16.0	0.88 fc	28.5 ft
20.0	0.56 fc	35.6 ft
24.0	0.39 fc	42.8 ft
Distance to Plane	Initial Footcandle at Nadir	Beam diameter

BEAM DIA. MEASURED AT 50% OF NADIR F.C.

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	689.78	N.A.	68.40
0-30	888.35	N.A.	88.10
0-40	967.10	N.A.	95.90
0-60	1002.98	N.A.	99.50
0-80	1007.7	N.A.	99.90
0-90	1008.52	N.A.	100.00

Luminance (Average candela/M²)

Angle in Degrees	Average		
	0°	45°	90°
45	4804	7488	11401
55	1259	2402	1832
65	810	1155	1262
75	638	838	905
85	834	1782	1725

Lumens Per Zone

Zone	Lumens
0-10	294.60
10-20	395.18
20-30	198.57
30-40	78.76
40-50	28.96
50-60	6.91
60-70	3.17
70-80	1.55
80-90	0.83

Candela Tabulation

Q	0
0	4072.106
5	3749.068
15	1540.129
25	463.550
35	125.440
45	27.019
55	5.743
65	2.724
75	1.313
85	0.578
90	0.020

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

ROOM CAVITY RATIO	RC				70%				50%				30%				10%				0%			
	RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	30%	10%	50%	30%	10%	10%	50%	30%	10%	0%		
0	119	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100		
1	114	112	110	108	108	112	110	108	107	106	105	103	102	101	100	99	98	98	98	98	97	96		
2	110	106	103	100	100	108	105	102	99	101	99	97	98	97	95	96	94	93	91	89	87	84		
3	106	101	97	94	104	100	96	93	97	94	92	95	92	90	93	91	89	87	85	84	81	77		
4	102	96	92	89	101	95	91	88	93	90	87	91	88	86	90	87	85	82	80	78	74	69		
5	99	92	87	84	97	91	87	84	90	86	83	88	85	82	87	84	81	78	75	72	68	63		
6	95	88	84	80	94	88	83	80	86	82	79	85	82	79	84	81	78	74	71	68	64	59		
7	92	85	80	77	91	84	80	77	83	79	76	82	79	76	81	78	74	70	67	63	59	54		
8	89	82	77	74	88	81	77	74	80	76	73	79	76	73	78	75	73	72	70	69	67	65		
9	86	79	74	71	85	78	74	71	78	74	71	77	73	71	76	73	70	69	68	67	66	65		
10	84	76	72	69	83	76	72	69	75	71	68	74	71	68	74	71	68	67	66	65	64	63		

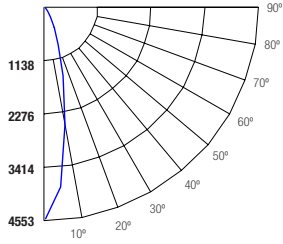
RC - Ceiling Cavity Reflectance RW - Wall Reflectance

A4-LED-900L-ND-DIMTR-40K-85-A4-F-1498

TEST NO.: **EL0718137**

INPUT WATTS: **10** LUMENS: **1082** CRI: **85** EFFICACY: **108** CCT: **4000K** SPACING CRITERIA: **0.42**

Candle Power Distribution (Candelas)



Cone of Light		
4.0	15.8 fc	6.7 ft
8.0	3.94 fc	13.3 ft
12.0	1.75 fc	20 ft
16.0	0.98 fc	26.6 ft
20.0	0.63 fc	33.3 ft
24.0	0.44 fc	39.9 ft
Distance to Plane	Initial Footcandle at Nadir	Beam diameter

BEAM DIA. MEASURED AT 50% OF NADIR F.C.

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	740.30	N.A.	68.40
0-30	959.87	N.A.	88.70
0-40	1036.48	N.A.	95.80
0-60	1071.05	N.A.	99.00
0-80	1080.54	N.A.	99.90
0-90	1082.01	N.A.	100.00

Luminance (Average candela/M²)

Angle in Degrees	Average		
	0°	45°	90°
45	1645	4913	7080
55	1458	1726	1365
65	1417	1427	1356
75	1234	1365	1436
85	1032	1954	2054

Lumens Per Zone

Zone	Lumens
0-10	316.24
10-20	424.06
20-30	219.57
30-40	76.61
40-50	25.97
50-60	8.60
60-70	5.87
70-80	3.62
80-90	1.47

Candela Tabulation

Q	0
0	4552.531
5	3884.161
15	1513.110
25	461.149
35	75.930
45	11.780
55	8.467
65	6.066
75	3.234
85	0.911
90	0.029

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

ROOM CAVITY RATIO	RC				70%				50%				30%				10%				0%			
	RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	30%	10%	50%	30%	10%	10%	50%	30%	10%	0%		
0	119	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100		
1	114	112	110	108	108	112	110	108	106	106	105	103	102	101	100	99	98	98	98	98	97	96		
2	110	106	103	100	100	108	104	101	99	101	99	97	98	96	95	96	94	93	91	89	87	84		
3	106	101	97	94	104	100	96	93	97	94	91	95	92	90	93	90	89	87	85	84	81	77		
4	102	96	92	88	101	95	91	88	93	90	87	91	88	86	89	87	85	84	81	78	74	69		
5	99	92	87	84	97	91	87	84	89	86	83	88	85	82	87	84	82	80	78	74	70	65		
6	95	88	84	80	94	88	83	80	86	82	79	85	82	79	84	81	78	74	71	68	64	59		
7	92	85	80	77	91	84	80	77	83	79	76	82	79	76	81	78	74	70	67	63	59	54		
8	89	82	77	74	88	81	77	74	80	76	73	79	76	73	78	75	73	72	70	69	67	65		
9	86	79	74	71	85	78	74	71	78	74	71	77	73	71	76	73	71	69	68	67	66	65		
10	84	76	72	69	83	76	72	69	75	71	68	75	71	68	74	71	68	67	66	65	64	63		

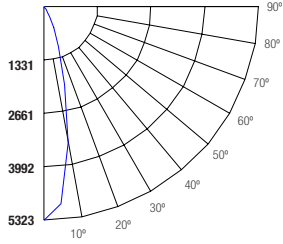
RC - Ceiling Cavity Reflectance RW - Wall Reflectance

A4-LED-1200L-ND-DIMTR-40K-85-A4-F-1402

TEST NO.: **EL0718119**

INPUT WATTS: **13.7** LUMENS: **1315** CRI: **85** EFFICACY: **96** CCT: **4000K** SPACING CRITERIA: **0.44**

Candle Power Distribution (Candelas)



Cone of Light		
4.0	18.4 fc	7.1 ft
8.0	4.6 fc	14.2 ft
12.0	2.05 fc	21.4 ft
16.0	1.15 fc	28.5 ft
20.0	0.74 fc	35.6 ft
24.0	0.51 fc	42.7 ft
Distance to Plane	Initial Footcandle at Nadir	Beam diameter

BEAM DIA. MEASURED AT 50% OF NADIR F.C.

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	899.90	N.A.	68.40
0-30	1157.78	N.A.	88.00
0-40	1260.78	N.A.	95.80
0-60	1308.07	N.A.	99.40
0-80	1314.32	N.A.	99.90
0-90	1315.41	N.A.	100.00

Luminance (Average candela/M²)

Angle in Degrees	Average		
	0°	45°	90°
45	5526	9809	15563
55	1648	3109	2397
65	1056	1525	1668
75	823	1119	1214
85	1075	2375	2304

Lumens Per Zone

Zone	Lumens
0-10	385.14
10-20	514.76
20-30	257.88
30-40	103.00
40-50	38.12
50-60	9.17
60-70	4.19
70-80	2.06
80-90	1.09

Candela Tabulation

Q	0
0	5322.753
5	4930.223
15	2006.227
25	575.113
35	148.970
45	31.076
55	7.517
65	3.548
75	1.695
85	0.745
90	0.029

Coefficients of Utilization - Zonal Cavity Method

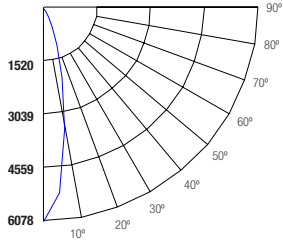
Effective Floor Cavity Reflectance 0.20

ROOM CAVITY RATIO	RC				70%				50%				30%				10%				0%			
	RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	30%	10%	50%	30%	10%	10%	50%	30%	10%	0%		
0	119	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	102	100		
1	115	112	110	108	108	112	110	108	107	106	105	103	102	101	100	99	98	98	98	98	97	96		
2	110	106	103	100	100	108	105	102																

A4-LED-1200L-ND-DIMTR-40K-85-A4-F-1498

INPUT WATTS: **13.9** LUMENS: **1433** CRI: **85** EFFICACY: **103** CCT: **4000K** TEST NO.: **EL0718130** SPACING CRITERIA: **0.42v**

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	983.87	N.A.	68.60
0-30	1272.08	N.A.	88.70
0-40	1373.09	N.A.	95.80
0-60	1418.94	N.A.	99.00
0-80	1431.45	N.A.	99.90
0-90	1433.47	N.A.	100.00

Luminance (Average candela/M²)

Angle in Degrees	Average		
	0°	45°	90°
45	2314	6650	10133
55	1928	2305	1810
65	1894	1914	1807
75	1664	1881	1941
85	1432	3142	2910

Lumens Per Zone

Zone	Lumens
0-10	422.02
10-20	561.85
20-30	288.22
30-40	101.01
40-50	34.53
50-60	11.32
60-70	7.72
70-80	4.79
80-90	2.03

Candela Tabulation

Q	0	5	15	25	35	45	55	65	75	85	90
0	6078.254										
5	5277.731										
15	2053.374										
25	612.627										
35	108.417										
45	16.572										
55	11.201										
65	8.105										
75	4.361										
85	1.264										
90	0.049										

Coefficients of Utilization - Zonal Cavity Method
Effective Floor Cavity Reflectance 0.20

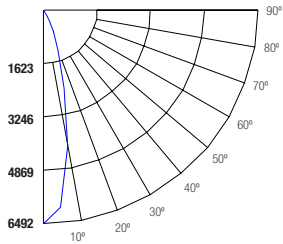
ROOM CAVITY RATIO	RC				80%				70%				50%				30%				10%				0%			
	RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%			
0	119	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	102	102	102	102	100	100			
1	115	112	110	108	108	112	110	108	106	106	105	103	102	102	101	100	99	98	98	98	97	97	96	96	96			
2	110	106	103	100	100	108	104	101	99	101	99	97	98	96	95	96	95	96	94	93	91	91	89	87	87			
3	106	101	97	94	94	104	100	96	93	97	94	91	95	92	90	93	91	89	87	85	84	82	80	80	80			
4	102	96	92	88	88	101	95	91	88	93	90	87	91	88	86	90	87	85	84	82	80	79	77	75	75			
5	99	92	88	84	84	97	91	87	84	90	86	83	88	85	82	87	84	81	79	77	75	73	72	70	70			
6	95	88	84	80	80	94	88	83	80	86	82	80	85	82	79	84	81	79	77	75	73	71	70	68	67			
7	92	85	80	77	77	91	84	80	77	83	79	76	82	79	76	81	78	76	75	73	71	70	68	67	67			
8	89	82	77	74	74	88	81	77	74	80	76	74	79	76	73	79	75	73	72	70	68	67	65	64	63			
9	86	79	74	71	71	86	79	74	71	78	74	71	77	73	71	76	73	71	70	68	67	65	63	62	61			
10	84	76	72	69	69	83	76	72	69	75	71	69	75	71	69	74	71	68	67	65	63	61	60	59	58			

RC - Ceiling Cavity Reflectance RW - Wall Reflectance

A4-LED1500L-ND-DIMTR-40K-85-A4-F-1402

INPUT WATTS: **18** LUMENS: **1600** CRI: **85** EFFICACY: **89** CCT: **4000K** TEST NO.: **EL0718116** SPACING CRITERIA: **0.44**

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	1096.19	N.A.	68.50
0-30	1409.17	N.A.	88.10
0-40	1534.08	N.A.	95.90
0-60	1591.37	N.A.	99.40
0-80	1598.93	N.A.	99.90
0-90	1600.25	N.A.	100.00

Luminance (Average candela/M²)

Angle in Degrees	Average		
	0°	45°	90°
45	6742	11823	18802
55	1991	3762	2879
65	1274	1843	2009
75	1000	1357	1466
85	1314	2842	2771

Lumens Per Zone

Zone	Lumens
0-10	469.51
10-20	626.67
20-30	312.98
30-40	124.91
40-50	46.21
50-60	11.08
60-70	5.07
70-80	2.49
80-90	1.32

Candela Tabulation

Q	0	5	15	25	35	45	55	65	75	85	90
0	6492.353										
5	6015.132										
15	2452.146										
25	702.356										
35	181.545										
45	37.916										
55	9.085										
65	4.283										
75	2.058										
85	0.911										
90	0.039										

Coefficients of Utilization - Zonal Cavity Method
Effective Floor Cavity Reflectance 0.20

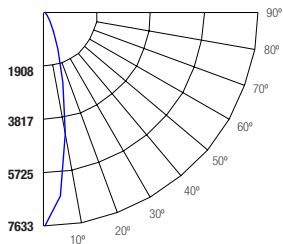
ROOM CAVITY RATIO	RC				80%				70%				50%				30%				10%				0%			
	RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%			
0	119	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	102	102	102	102	100	100			
1	115	112	110	108	108	112	110	108	107	106	105	103	102	102	101	100	99	98	98	97	97	96	96	96	96			
2	110	106	103	100	100	108	104	101	99	101	99	97	98	96	95	96	95	96	94	93	91	91	89	87	87			
3	106	101	97	94	94	104	100	96	93	97	94	92	95	92	90	93	91	89	87	85	84	82	80	80	80			
4	102	96	92	88	88	101	95	91	88	93	90	87	91	88	86	90	87	85	84	82	80	79	77	75	75			
5	99	92	88	84	84	97	91	87	84	90	86	83	88	85	82	87	84	82	80	79	77	75	73	72	70			
6	95	88	84	80	80	94	88	83	80	86	82	80	85	82	79	84	81	79	77	75	73	71	70	68	67			
7	92	85	80	77	77	91	84	80	77	83	79	76	82	79	76	81	78	76	75	73	71	70	68	67	67			
8	89	82	77	74	74	88	81	77	74	80	76	74	79	76	73	79	75	73	72	70	68	67	65	64	63			
9	86	79	74	71	71	85	79	74	71	78	74	71	77	73	71	76	73	71	70	68	67	65	63	62	61			
10	84	76	72	69	69	83	76	72	69	75	71	69	75	71	69	74	71	68	67	65	63	61	60	59	58			

RC - Ceiling Cavity Reflectance RW - Wall Reflectance

A4-LED-1500L-ND-DIMTR-40K-85-A4-F-1498

INPUT WATTS: **18.5** LUMENS: **1790** CRI: **85** EFFICACY: **97** CCT: **4000K** TEST NO.: **EL0718129** SPACING CRITERIA: **0.42**

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	1230.15	N.A.	68.70
0-30	1589.33	N.A.	88.80
0-40	1715.13	N.A.	95.80
0-60	1772.06	N.A.	99.00
0-80	1787.55	N.A.	99.90
0-90	1790.07	N.A.	100.00

Luminance (Average candela/M²)

Angle in Degrees	Average		
	0°	45°	90°
45	2873	8224	12569
55	2386	2841	2236
65	2340	2365	2230
75	2060	2322	2397
85	1777	3898	3609

Lumens Per Zone

Zone	Lumens
0-10	528.12
10-20	702.02
20-30	359.18
30-40	125.80
40-50	42.91
50-60	14.02
60-70	9.56
70-80	5.94
80-90	2.52

Candela Tabulation

Q	0	5	15	25	35	45	55	65	75	85	90
0	7633.122										
5	6586.904										
15	2583.584										
25	769.721										
35	133.476										
45	20.570										
55	13.857										
65	10.016										
75	5.400										
85	1.568										
90	0.049										

Coefficients of Utilization - Zonal Cavity Method
Effective Floor Cavity Reflectance 0.20

A4-LED-2000L-ND-DIMTR-40K-85-A4-F-1402

TEST NO.: **EL0718113**

INPUT WATTS: **20.8**

LUMENS: **1767**

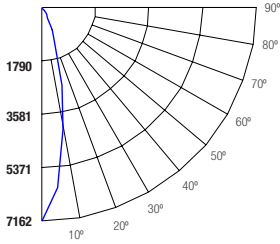
CRI: **85**

EFFICACY: **85**

CCT: **4000K**

SPACING CRITERIA: **0.44**

Candle Power Distribution (Candelas)



Cone of Light		
4.0	24.8 fc	7.1 ft
8.0	6.2 fc	14.2 ft
12.0	2.75 fc	21.3 ft
16.0	1.55 fc	28.4 ft
20.0	0.99 fc	35.5 ft
24.0	0.69 fc	42.6 ft
Distance to Plane	Initial Footcandle at Nadir	Beam diameter

BEAM DIA. MEASURED AT 50% OF NADIR F.C.

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	1207.66	N.A.	68.30
0-30	1554.5	N.A.	88.00
0-40	1693.55	N.A.	95.80
0-60	1757.45	N.A.	99.40
0-80	1765.97	N.A.	99.90
0-90	1767.45	N.A.	100.00

Luminance (Average candela/M²)

Angle in Degrees	Average		
	0°	45°	90°
45	18429	7937	4060
55	3059	2576	1985
65	2140	1644	1242
75	1561	1228	952
85	2913	2418	948

Lumens Per Zone

Zone	Lumens
0-10	517.22
10-20	690.44
20-30	346.83
30-40	139.06
40-50	51.42
50-60	12.48
60-70	5.72
70-80	2.80
80-90	1.48

Candela Tabulation

0	
0	7161.576
5	6087.398
15	2703.203
25	812.949
35	276.262
45	103.645
55	13.955
65	7.193
75	3.214
85	2.019
90	1.421

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

ROOM CAVITY RATIO	RC RW	80%				70%				50%				30%				10%				0%			
		70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%	30%	10%	0%			
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100	102	102	102	100		
1	115	112	110	108	112	110	108	107	106	105	103	102	102	101	100	99	98	97	96	98	97	96	96		
2	110	106	103	100	108	105	102	99	101	99	97	99	97	95	96	94	93	91	91	96	94	93	91		
3	106	101	97	94	104	100	96	93	97	94	92	95	92	90	93	91	89	87	87	93	91	89	87		
4	102	96	92	89	101	95	91	88	93	90	87	91	88	86	90	87	85	84	84	88	86	85	84		
5	99	92	88	84	97	91	87	84	90	86	83	88	85	82	87	84	82	80	80	85	82	81	80		
6	95	88	84	80	94	88	83	80	86	82	80	85	82	79	84	81	79	77	77	82	79	78	77		
7	92	85	80	77	91	84	80	77	83	79	76	82	79	76	81	78	76	74	74	79	76	75	74		
8	89	82	77	74	88	81	77	74	80	76	73	79	76	73	79	75	73	72	72	77	73	73	72		
9	86	79	74	71	85	78	74	71	78	74	71	77	73	71	76	73	70	69	69	73	70	69	69		
10	84	76	72	69	83	76	72	69	75	71	69	74	71	68	74	71	68	67	67	71	68	67	67		

RC - Ceiling Cavity Reflectance RW - Wall Reflectance

A4-LED-2000L-ND-DIMTR-40K-85-A4-F-1498

TEST NO.: **EL0718125**

INPUT WATTS: **20.9**

LUMENS: **1949**

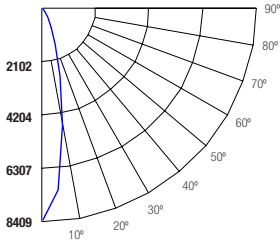
CRI: **85**

EFFICACY: **93**

CCT: **4000K**

SPACING CRITERIA: **0.42**

Candle Power Distribution (Candelas)



Cone of Light		
4.0	29.1 fc	6.5 ft
8.0	7.27 fc	13 ft
12.0	3.23 fc	19.6 ft
16.0	1.82 fc	26.1 ft
20.0	1.16 fc	32.6 ft
24.0	0.81 fc	39.1 ft
Distance to Plane	Initial Footcandle at Nadir	Beam diameter

BEAM DIA. MEASURED AT 50% OF NADIR F.C.

Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	1343.45	N.A.	68.90
0-30	1731.65	N.A.	88.80
0-40	1867.87	N.A.	95.80
0-60	1929.36	N.A.	99.00
0-80	1946.24	N.A.	99.90
0-90	1949.00	N.A.	100.00

Luminance (Average candela/M²)

Angle in Degrees	Average		
	0°	45°	90°
45	2963	8819	12809
55	2592	3081	2413
65	2533	2553	2400
75	2225	2498	2569
85	1920	4131	3842

Lumens Per Zone

Zone	Lumens
0-10	579.45
10-20	764.00
20-30	388.19
30-40	136.23
40-50	46.25
50-60	15.23
60-70	10.41
70-80	6.47
80-90	2.76

Candela Tabulation

0	
0	8408.969
5	7245.179
15	2773.233
25	836.783
35	146.147
45	21.217
55	15.053
65	10.839
75	5.831
85	1.695
90	0.069

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

ROOM CAVITY RATIO	RC RW	80%				70%				50%				30%				10%				0%			
		70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%	30%	10%	0%			
0	119	119	119	119	116	116	116	116	111	111	111	111	106	106	106	102	102	102	100	102	102	102	100		
1	115	112	110	108	112	110	108	106	106	105	103	102	102	101	100	99	98	97	96	98	97	96	96		
2	110	106	103	100	108	104	102	99	101	99	97	99	97	95	96	94	93	91	91	96	94	93	91		
3	106	101	97	94	104	100	96	93	97	94	92	95	92	90	93	91	89	87	87	93	91	89	87		
4	102	96	92	89	101	95	91	88	93	90	87	91	88	86	90	87	85	84	84	88	86	85	84		
5	99	92	88	84	97	91	87	84	90	86	83	88	85	82	87	84	82	81	81	85	82	81	80		
6	95	88	84	80	94	88	83	80	86	83	80	85	82	79	84	81	79	78	78	82	79	78	77		
7	92	85	80	77	91	84	80	77	83	79	77	82	79	76	81	78	76	75	75	79	76	75	74		
8	89	82	77	74	88	81	77	74	81	77	74	80	76	73	79	76	73	72	72	77	73	73	72		
9	87	79	75	72	86	79	74	71	78	74	71	77	74	71	76	73	70	69	69	73	70	69	69		
10	84	77	72	69	83	76	72	69	75	72	69	75	71	69	74	71	68	67	67	71	68	67	67		

RC - Ceiling Cavity Reflectance RW - Wall Reflectance

RC - Ceiling Cavity Reflectance RW - Wall Reflectance