

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: INVUE

Report Number: P141220

Luminaire Tested: **ECM-E01-LED-E1-SL4**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141220
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33692)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-E01-LED-E1-SL4
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (21) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2823.5 lumens
Efficiency: N/A
Efficacy: 114.3 lumens/watt
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

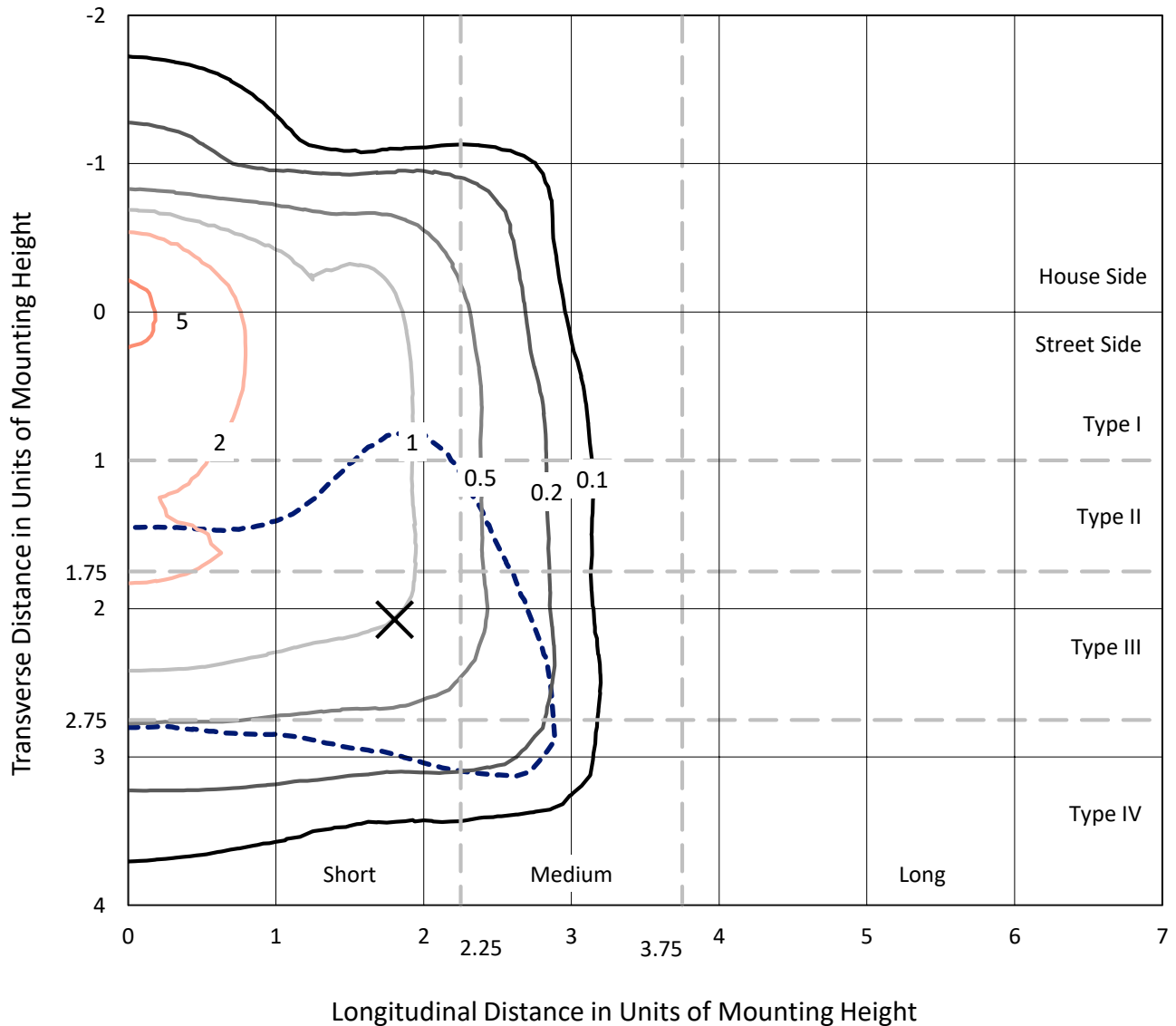
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

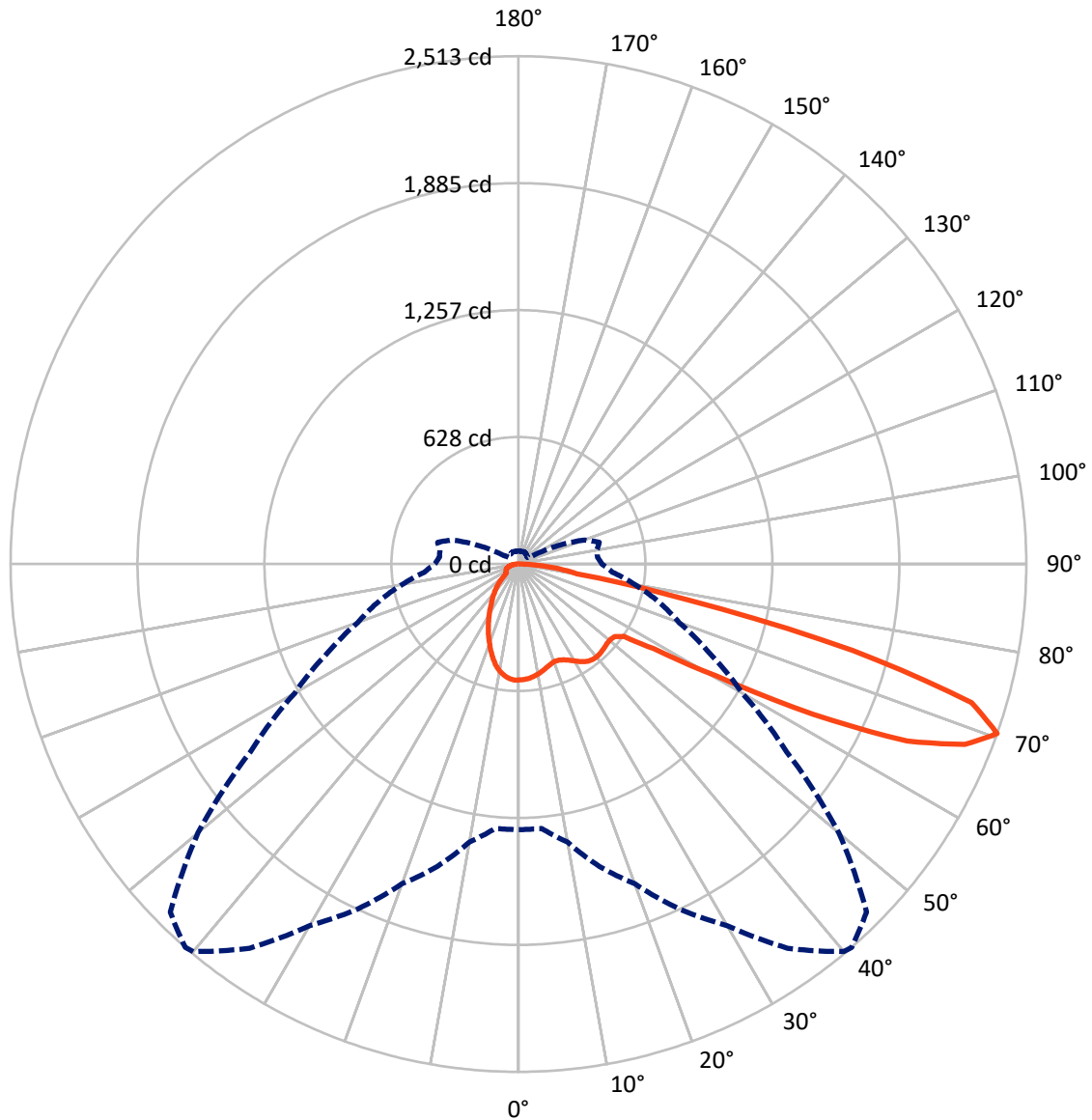
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.7 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 41-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	605.8	0.0	605.8
	% Fixture	21.5	0.0	21.5
Street Side	Lumens	2217.7	0.0	2217.7
	% Fixture	78.5	0.0	78.5
Total	Lumens	2823.5	0.0	2823.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.4	1.9
10°-20°	143.1	5.1
20°-30°	206.9	7.3
30°-40°	263.3	9.3
40°-50°	310.3	11.0
50°-60°	474.7	16.8
60°-70°	882.4	31.3
70°-80°	425.9	15.1
80°-90°	63.6	2.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2823.5	100.0
0°-180°	2823.5	100.0



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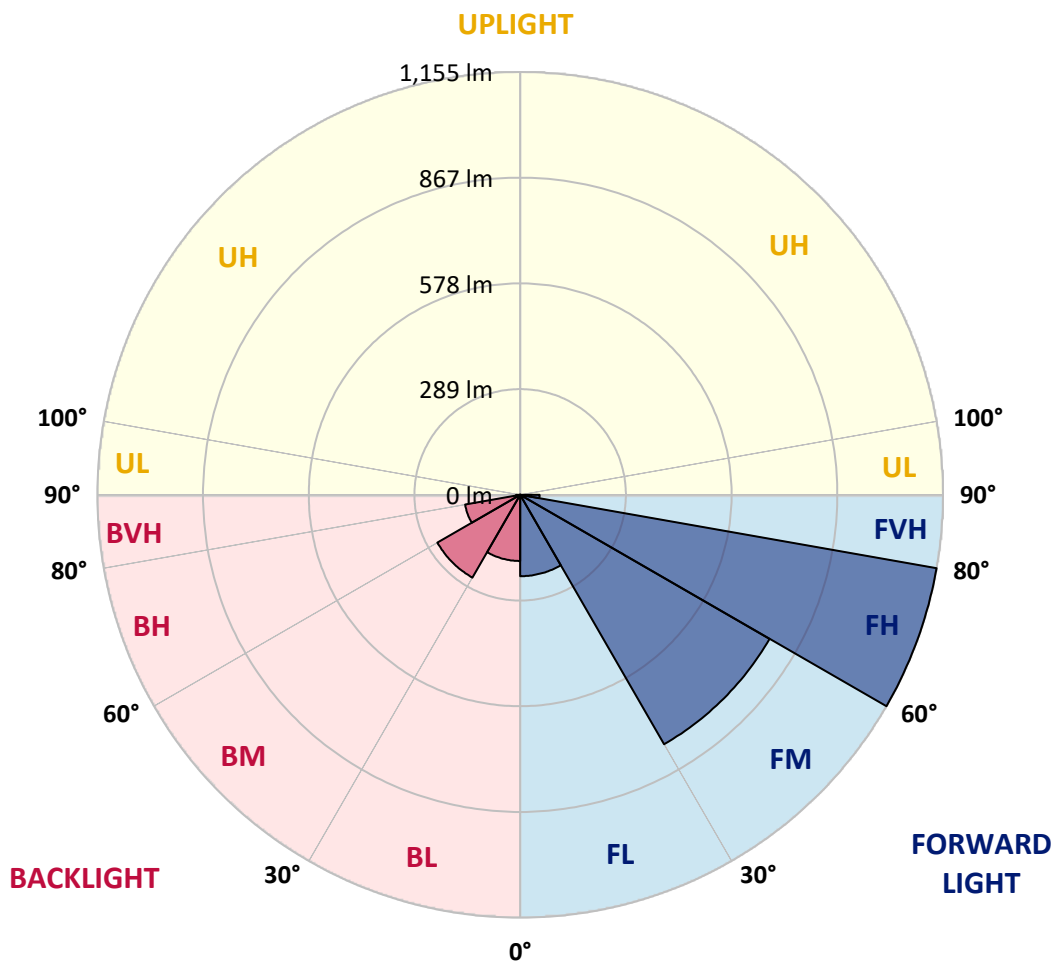
CATALOG NUMBER: ECM-E01-LED-E1-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	222.4	7.9			
FM	(30°-60°)	787.0	27.9			
FH	(60°-80°)	1155.5	40.9			G1/1800
FVH	(80°-90°)	52.9	1.9			G1/100
BL	(0°-30°)	180.9	6.4	B1/500		
BM	(30°-60°)	261.3	9.3	B1/1000		
BH	(60°-80°)	152.8	5.4	B1/500		G1/500
BVH	(80°-90°)	10.7	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	41°	45°
0°	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7
2.5°	573.7	574.3	574.0	573.3	572.7	573.0	572.7	572.3	572.3	572.0	571.7
5°	571.0	572.3	571.3	570.7	569.7	569.7	569.3	568.7	568.0	567.7	567.0
7.5°	565.3	566.7	566.0	565.3	564.3	563.7	562.3	561.7	561.0	560.7	559.7
10°	557.7	558.3	557.7	556.3	555.7	555.3	554.7	553.3	552.0	551.3	550.3
12.5°	547.7	548.0	547.3	546.7	545.7	545.7	544.7	543.7	541.7	541.0	538.7
15°	539.0	538.0	537.3	537.0	536.7	535.0	535.3	533.7	530.3	529.3	526.7
17.5°	536.7	535.7	535.3	534.3	533.7	531.7	529.7	526.3	520.7	519.7	515.7
20°	543.3	543.3	542.3	541.7	540.7	537.0	532.7	526.3	516.0	513.7	508.7
22.5°	559.3	557.7	557.0	557.0	556.7	551.3	543.3	533.3	519.7	516.7	508.0
25°	584.3	581.3	582.3	582.0	581.3	573.7	562.0	547.7	529.0	525.0	513.7
27.5°	614.0	614.7	614.3	613.0	611.0	602.7	586.0	566.7	543.3	539.3	524.7
30°	645.0	645.7	647.7	646.7	645.3	632.7	612.0	591.0	562.7	557.3	539.3
32.5°	681.0	683.3	685.0	685.3	680.0	662.7	638.3	611.7	581.7	576.3	554.0
35°	722.7	721.3	724.3	723.0	713.7	690.0	660.0	628.3	597.7	590.7	566.7
37.5°	764.7	766.3	763.3	757.7	743.0	712.0	675.0	639.3	605.3	598.7	573.7
40°	805.3	804.3	797.3	787.7	765.7	726.0	683.3	644.3	608.0	601.0	575.3
42.5°	835.7	833.0	822.3	806.7	778.3	732.7	685.7	644.3	606.3	599.0	573.0
45°	849.0	846.3	836.0	816.0	782.3	731.3	681.7	638.7	600.7	594.3	568.3
47.5°	849.0	848.0	836.7	817.3	781.3	727.7	675.7	631.7	595.0	588.7	564.3
50°	842.3	841.7	831.7	812.7	778.0	725.7	674.0	630.3	594.7	588.3	566.0
52.5°	864.7	860.3	850.0	828.0	790.3	734.0	682.3	637.0	602.7	596.3	573.3
55°	1136.3	1132.7	1080.3	988.3	892.0	804.0	728.7	676.7	642.0	632.3	615.7
57.5°	1575.7	1570.3	1516.7	1433.0	1267.3	1079.0	931.3	844.7	796.0	789.0	779.0
60°	1754.0	1752.0	1729.3	1695.3	1632.7	1535.3	1398.0	1254.0	1142.0	1124.0	1125.3
62.5°	1856.3	1851.3	1840.3	1832.0	1810.7	1771.0	1745.3	1705.0	1650.7	1638.3	1560.3
65°	1913.7	1913.0	1919.0	1926.0	1924.7	1936.7	1949.7	2026.7	2117.0	2113.0	2030.7
67.5°	1828.3	1834.0	1865.3	1913.3	1963.7	2017.0	2116.3	2270.7	2382.3	2382.3	2310.0
70°	1314.3	1313.3	1396.7	1548.7	1684.0	1883.3	2066.3	2320.7	2503.3	2513.0	2436.3
72.5°	787.7	806.0	857.3	926.3	1041.3	1282.7	1623.0	2080.0	2335.0	2345.3	2253.7
75°	553.3	539.7	537.7	541.7	561.3	620.7	808.0	1276.7	1692.7	1708.7	1620.0
77.5°	354.0	351.0	352.3	356.7	357.7	363.3	372.3	437.7	784.7	861.3	857.3
80°	305.3	304.3	304.7	299.7	290.0	286.3	297.7	288.7	280.3	292.0	276.0
82.5°	204.7	208.3	214.3	222.3	241.7	248.3	244.7	243.0	216.7	210.7	187.0
85°	151.7	149.7	152.0	152.0	147.0	142.0	145.7	142.0	125.7	117.7	104.0
87.5°	82.0	82.3	89.0	91.7	91.3	78.0	64.3	55.7	50.3	46.7	39.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: ECM-E01-LED-E1-SL4

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7
2.5°	572.0	571.0	571.3	571.3	571.0	571.7	570.7	570.3	570.7	570.7	570.7
5°	566.3	565.0	565.0	564.7	564.0	564.0	562.7	562.3	561.7	562.7	562.0
7.5°	558.3	556.3	554.7	553.3	552.7	551.7	550.0	549.3	548.7	548.3	547.7
10°	548.7	546.3	543.0	540.3	539.0	536.3	534.3	531.7	531.7	530.3	529.0
12.5°	537.0	533.7	530.3	526.7	524.3	520.7	517.3	514.3	512.0	509.0	507.0
15°	525.3	520.3	516.7	513.0	508.7	503.7	499.7	495.0	490.7	486.0	484.7
17.5°	512.7	508.7	505.3	501.0	496.3	490.3	485.0	477.3	472.0	466.3	462.0
20°	504.3	499.7	496.0	492.0	487.0	480.0	473.0	464.3	456.3	448.0	441.7
22.5°	500.0	492.3	489.0	485.3	480.3	472.7	464.7	454.0	444.0	433.0	423.0
25°	501.7	491.3	484.7	480.7	476.3	468.7	458.3	446.3	435.0	421.0	409.7
27.5°	509.0	495.0	484.7	478.0	473.3	465.3	454.7	441.0	427.3	412.7	399.0
30°	518.7	501.0	487.7	478.0	471.0	462.3	450.7	436.0	421.0	404.7	389.0
32.5°	529.7	508.0	492.0	478.7	467.3	456.3	444.3	429.0	413.3	396.0	380.7
35°	538.3	513.3	495.0	477.3	462.3	448.7	434.7	420.3	404.7	388.3	372.0
37.5°	543.3	516.7	495.0	472.7	454.3	440.0	425.3	411.3	396.3	380.3	366.0
40°	545.3	518.0	493.0	467.3	446.0	429.7	416.0	401.7	388.3	374.3	361.7
42.5°	544.3	517.0	490.3	462.3	439.3	421.7	406.7	393.3	382.3	370.7	360.0
45°	540.3	513.7	487.7	460.0	437.0	419.0	403.7	391.0	380.7	370.0	361.7
47.5°	537.0	512.3	489.3	465.7	443.7	425.3	408.7	394.7	386.0	377.7	372.3
50°	539.7	516.0	493.0	470.7	449.3	430.7	413.7	400.7	395.7	394.3	392.7
52.5°	547.0	523.7	504.3	488.7	479.0	472.0	454.7	451.7	447.3	445.0	439.3
55°	594.7	585.0	602.3	621.3	624.7	645.7	654.0	654.7	647.3	621.3	560.7
57.5°	788.7	812.7	820.0	864.0	876.0	866.7	854.0	853.3	830.7	796.3	708.0
60°	1135.3	1122.7	1107.0	1078.3	1051.3	1022.3	982.3	951.7	922.7	870.0	777.0
62.5°	1498.0	1387.7	1307.3	1225.0	1158.3	1100.0	1042.0	992.7	945.7	872.7	773.0
65°	1812.7	1588.0	1425.0	1301.3	1198.0	1112.7	1035.7	968.3	909.0	817.7	716.7
67.5°	2017.3	1694.3	1450.7	1266.0	1120.0	1011.3	898.0	791.7	733.3	659.7	608.3
70°	2069.7	1619.3	1279.3	1042.7	846.0	716.3	582.7	466.7	413.0	392.3	394.0
72.5°	1867.0	1280.0	907.0	663.3	519.3	411.7	334.7	257.3	201.0	168.7	164.7
75°	1219.7	712.3	430.7	300.0	238.7	190.0	149.7	126.0	108.7	87.7	73.3
77.5°	461.0	271.3	193.3	157.7	116.7	81.3	63.3	53.3	49.0	47.7	43.0
80°	236.3	188.3	134.7	88.7	62.0	49.7	41.7	35.3	32.7	31.3	32.0
82.5°	159.3	118.7	74.3	53.3	43.0	37.0	29.3	24.7	22.0	21.7	23.3
85°	88.7	59.3	43.3	36.0	31.7	27.7	22.3	18.3	17.0	18.0	21.0
87.5°	27.7	27.3	19.7	16.0	16.7	14.3	10.7	8.0	8.0	10.3	14.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7	573.7
2.5°	570.7	571.3	572.7	571.7	572.0	572.3	573.3	574.7	573.7	573.0	575.0
5°	562.7	562.7	564.3	563.7	565.0	566.3	567.0	569.3	568.7	568.0	570.7
7.5°	548.0	548.3	550.7	550.0	552.7	553.0	555.7	557.7	557.7	559.0	561.3
10°	529.3	529.3	531.3	531.7	533.3	534.7	537.7	541.3	542.0	544.3	547.7
12.5°	508.3	507.7	509.3	509.3	510.7	512.3	515.7	520.0	520.7	524.3	528.7
15°	482.3	481.3	480.7	481.3	482.0	482.3	487.3	491.7	494.3	498.3	502.7
17.5°	457.3	453.7	452.0	452.0	452.3	452.3	454.3	459.3	463.0	469.3	475.7
20°	435.0	428.7	426.3	421.0	420.0	417.7	419.3	425.0	431.7	436.7	441.7
22.5°	414.0	407.3	400.7	394.3	389.3	386.3	389.3	393.0	395.3	399.3	400.7
25°	398.0	387.0	377.7	367.7	362.3	359.7	359.3	359.0	357.0	356.3	356.3
27.5°	385.3	372.3	358.3	347.3	340.0	335.0	329.3	325.3	320.3	313.7	310.3
30°	374.7	360.7	345.3	332.3	323.0	313.3	301.7	292.7	283.7	275.7	268.7
32.5°	365.0	350.7	335.7	322.0	306.0	289.3	274.7	264.0	248.3	237.7	228.7
35°	357.7	343.3	329.3	311.3	289.3	268.0	249.0	233.3	217.3	203.3	191.3
37.5°	352.3	340.3	325.3	301.0	273.3	247.7	227.7	209.0	190.0	171.0	156.0
40°	350.7	340.3	321.3	289.7	258.0	230.3	207.3	184.3	163.3	143.0	127.7
42.5°	351.7	340.7	315.0	279.7	245.3	215.3	189.3	162.7	137.7	116.0	100.7
45°	355.3	340.7	308.3	268.7	233.7	201.7	170.7	139.0	110.0	92.7	86.0
47.5°	366.3	343.0	303.0	260.7	223.3	186.7	149.7	113.7	89.0	81.7	81.7
50°	383.3	350.0	302.3	254.7	211.7	169.3	123.7	89.7	78.7	78.3	80.3
52.5°	412.3	362.3	305.7	250.7	199.3	146.0	96.3	77.3	75.0	77.0	80.0
55°	468.7	384.0	310.3	243.3	178.7	114.3	79.0	73.3	74.3	76.7	79.3
57.5°	571.7	427.7	315.3	227.7	144.7	86.7	71.7	72.0	73.7	76.0	78.3
60°	642.7	481.7	325.3	201.3	107.7	71.7	68.7	71.3	73.3	75.0	77.0
62.5°	648.7	501.3	332.7	171.7	80.0	65.3	66.0	70.0	72.7	73.3	74.3
65°	612.7	476.0	311.7	141.7	66.3	62.0	64.3	68.0	70.7	71.0	72.0
67.5°	534.0	423.0	266.0	107.7	60.7	59.7	62.3	64.7	66.7	68.3	69.7
70°	413.7	345.3	214.0	83.7	56.3	56.0	58.3	61.0	63.0	64.7	66.7
72.5°	218.0	245.3	159.3	67.0	51.7	52.0	54.3	56.7	58.0	59.7	61.7
75°	67.7	104.0	98.3	53.7	46.0	47.3	48.7	50.7	53.0	54.0	55.0
77.5°	40.0	42.3	51.3	42.0	40.0	41.0	42.7	44.3	46.0	47.3	48.3
80°	32.3	33.0	33.3	33.3	33.3	34.7	36.0	38.3	39.7	40.3	40.7
82.5°	25.3	27.0	27.3	26.7	27.7	29.0	29.7	31.0	31.3	32.0	32.7
85°	21.0	20.7	21.3	21.7	20.3	20.3	19.7	19.7	21.0	23.3	23.7
87.5°	16.3	14.3	11.7	11.0	10.3	9.7	9.0	9.0	9.3	10.7	11.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: ECM-E01-LED-E1-SL4

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	573.7	573.7	573.7	573.7	573.7
2.5°	575.0	574.7	575.3	576.3	575.7
5°	571.0	571.0	572.3	573.3	572.7
7.5°	563.0	563.3	565.3	566.7	566.0
10°	550.3	551.0	553.3	555.3	556.3
12.5°	531.3	533.7	536.7	538.7	538.7
15°	507.3	511.0	514.3	517.3	515.7
17.5°	480.0	484.3	488.7	490.3	488.7
20°	447.0	447.3	450.0	451.7	451.0
22.5°	402.0	400.7	402.0	402.7	403.7
25°	356.0	353.7	352.3	354.3	355.3
27.5°	309.0	305.7	306.7	304.3	301.7
30°	263.3	260.3	256.7	255.7	257.3
32.5°	223.0	215.3	212.3	206.7	209.0
35°	180.3	172.7	165.3	163.3	162.0
37.5°	145.3	136.0	127.0	124.0	123.3
40°	113.7	106.0	100.0	98.3	97.7
42.5°	92.3	89.0	88.0	88.0	88.3
45°	84.3	84.7	85.7	86.3	86.7
47.5°	82.7	84.0	85.3	86.7	87.0
50°	82.7	83.7	84.7	86.0	86.3
52.5°	82.0	83.0	83.3	84.0	84.7
55°	81.3	81.7	81.7	82.0	82.7
57.5°	79.7	80.0	79.3	79.7	81.0
60°	78.0	78.3	77.7	78.3	78.7
62.5°	75.7	75.7	75.3	75.7	76.0
65°	73.0	72.0	72.7	72.3	72.7
67.5°	69.7	68.3	68.0	68.0	68.3
70°	65.0	64.0	63.7	64.3	65.0
72.5°	59.3	60.0	61.0	62.0	63.7
75°	55.3	56.3	57.7	61.0	63.3
77.5°	49.7	49.3	50.7	54.3	57.7
80°	41.3	41.7	41.3	42.3	43.0
82.5°	31.7	31.3	30.3	30.3	29.7
85°	22.3	21.3	20.0	19.7	19.3
87.5°	11.3	12.0	11.0	10.0	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)