

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: P162650

Luminaire Tested: **EMM-F03-LED-E1-SL4-HSS-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162650
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33728)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: EMM-F03-LED-E1-SL4-HSS-8030
Description: EPIC MODERN MEDIUM DECORATIVE LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (21) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4043.8 lumens
Efficiency: N/A
Efficacy: 51.6 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G2

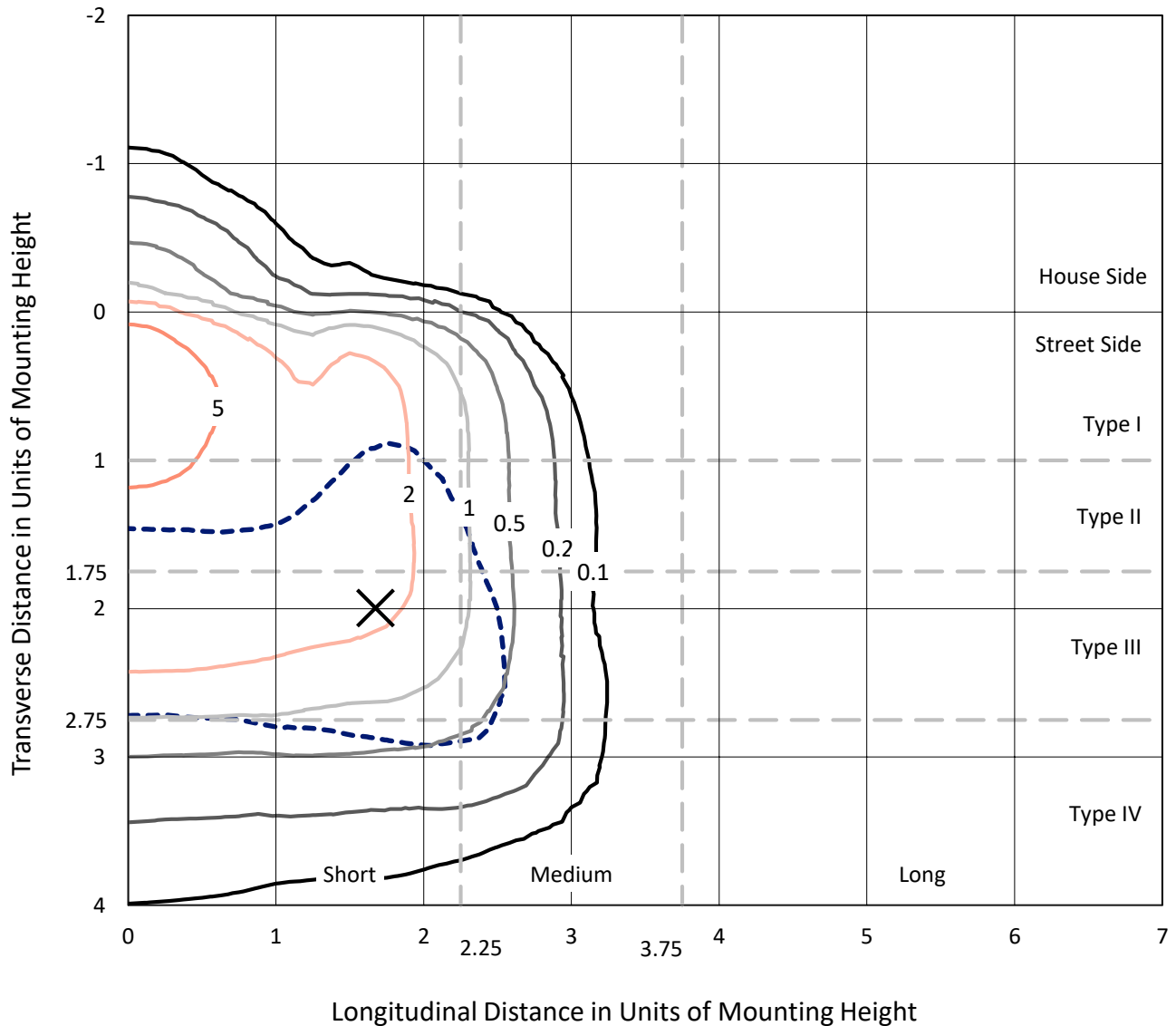
Input Watts (W): 78.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P162650
 CATALOG NUMBER: EMM-F03-LED-E1-SL4-HSS-8030

Iso-Footcandle Lines of Horizontal Illumination

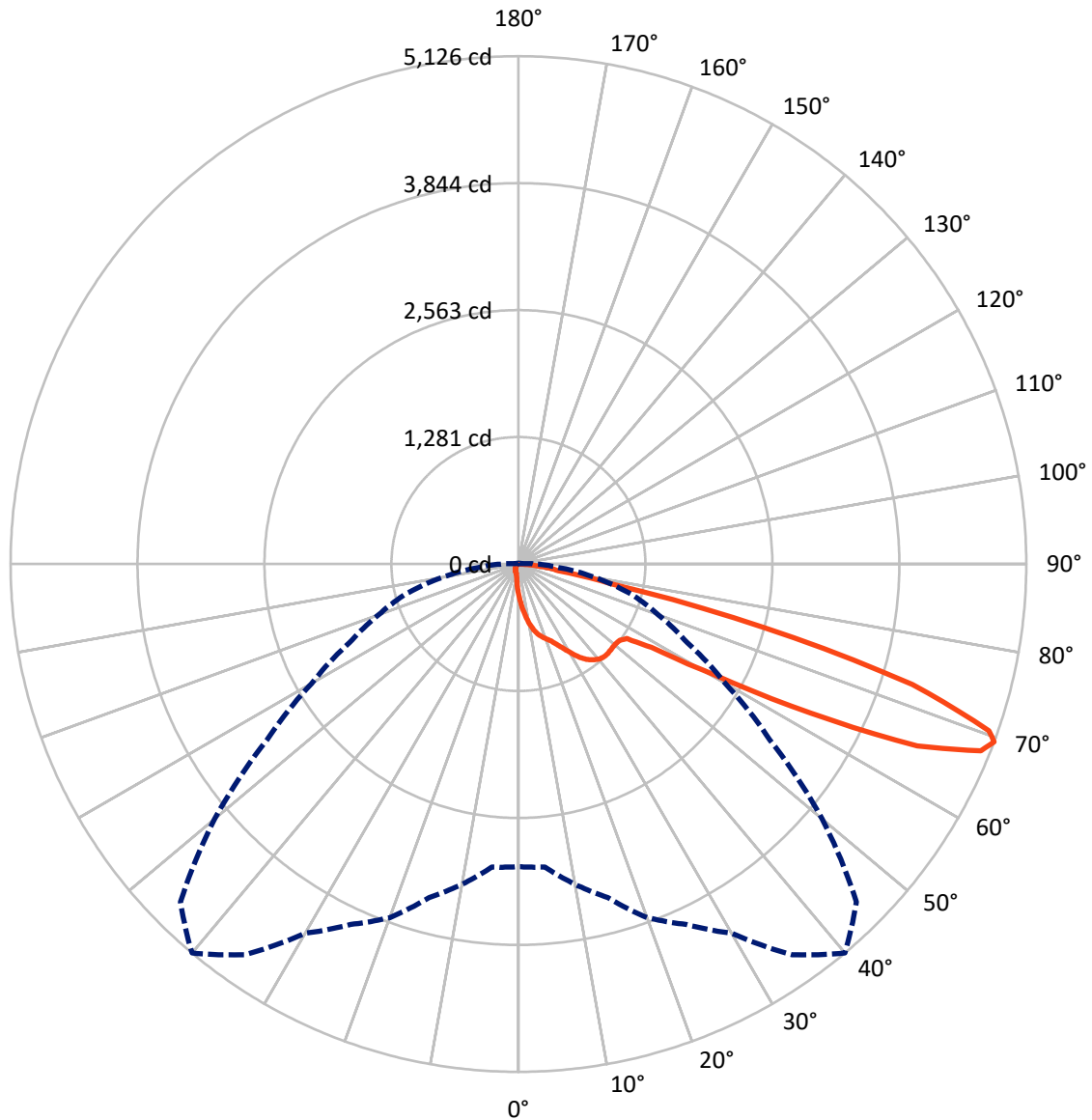
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P162650
CATALOG NUMBER: EMM-F03-LED-E1-SL4-HSS-8030

Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P162650

CATALOG NUMBER: EMM-F03-LED-E1-SL4-HSS-8030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	120.4	0.0	120.4
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	3923.3	0.0	3923.3
	% Fixture	97.0	0.0	97.0
Total	Lumens	4043.8	0.0	4043.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.4	0.8
10°-20°	108.2	2.7
20°-30°	207.1	5.1
30°-40°	344.5	8.5
40°-50°	466.1	11.5
50°-60°	728.9	18.0
60°-70°	1498.7	37.1
70°-80°	603.1	14.9
80°-90°	55.8	1.4
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°	4043.8	100.0
0°-180°	4043.8	100.0



REPORT NUMBER: P162650

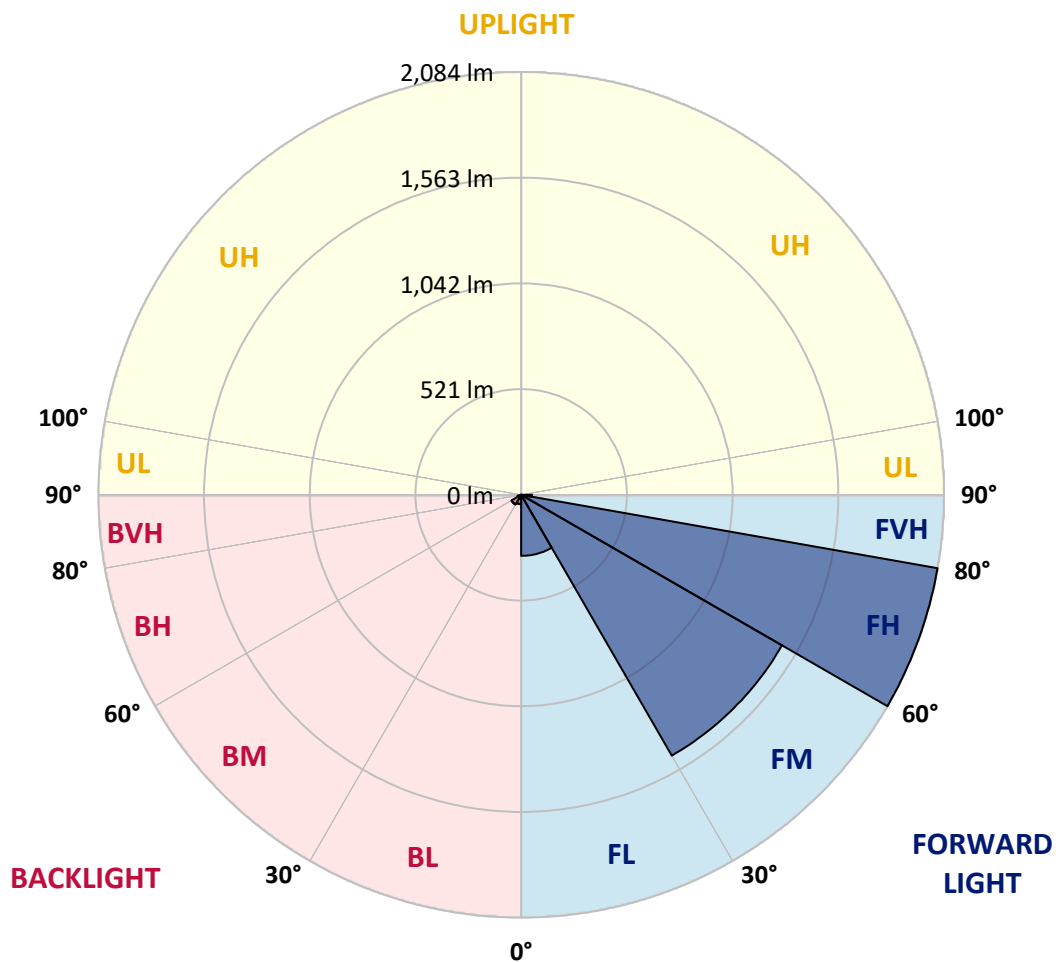
CATALOG NUMBER: EMM-F03-LED-E1-SL4-HSS-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	300.9	7.4			
FM	(30°-60°)	1484.5	36.7			
FH	(60°-80°)	2084.2	51.5			G2/5000
FVH	(80°-90°)	53.7	1.3			G1/100
BL	(0°-30°)	45.8	1.1	B0/110		
BM	(30°-60°)	55.0	1.4	B0/220		
BH	(60°-80°)	17.6	0.4	B0/110		G0/110
BVH	(80°-90°)	2.1	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G2

Type IV Short





REPORT NUMBER: P162650
 CATALOG NUMBER: EMM-F03-LED-E1-SL4-HSS-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	305.4	305.4	305.4	305.4	305.4	305.4	305.4	305.4	305.4	305.4	305.4
2.5°	407.4	402.8	397.5	397.5	390.8	390.8	386.8	376.2	374.9	369.0	363.0
5°	520.0	516.0	509.4	503.5	498.2	488.9	482.3	469.7	455.7	442.5	430.6
7.5°	630.0	628.0	616.1	614.1	605.5	590.2	577.0	558.4	534.6	516.0	494.2
10°	732.0	727.3	724.7	713.5	700.8	684.3	663.8	641.2	613.4	584.3	553.1
12.5°	812.8	810.2	798.2	793.6	780.3	763.8	737.9	708.8	681.0	643.2	606.8
15°	873.1	868.4	860.5	853.2	837.3	822.7	798.9	767.1	733.3	692.2	648.5
17.5°	923.5	914.8	912.8	901.6	885.0	867.8	841.3	812.1	772.4	731.3	683.6
20°	991.0	979.1	975.1	958.5	939.3	915.5	885.0	848.6	806.8	761.8	712.8
22.5°	1070.5	1061.9	1053.3	1038.7	1014.2	980.4	936.0	896.3	843.3	793.6	740.6
25°	1183.1	1175.8	1161.9	1142.0	1111.6	1071.2	1017.5	959.2	896.9	833.4	771.1
27.5°	1292.4	1285.8	1275.9	1260.6	1226.2	1181.8	1115.5	1041.3	962.5	885.7	816.8
30°	1395.1	1389.1	1379.2	1363.9	1333.5	1289.7	1214.9	1135.4	1037.4	947.9	865.1
32.5°	1505.7	1503.7	1492.5	1470.6	1444.1	1385.1	1303.7	1218.2	1118.8	1015.5	918.8
35°	1630.9	1615.7	1605.1	1583.2	1538.2	1475.2	1379.8	1286.5	1181.8	1075.8	967.8
37.5°	1736.9	1722.3	1709.1	1681.2	1626.3	1546.1	1438.1	1335.4	1227.5	1119.5	1009.6
40°	1814.4	1807.1	1791.2	1754.8	1693.1	1597.8	1481.2	1369.2	1260.6	1152.0	1043.3
42.5°	1872.0	1860.8	1842.9	1805.1	1732.2	1623.6	1498.4	1383.2	1275.9	1171.8	1065.2
45°	1893.2	1884.0	1867.4	1826.3	1747.5	1630.9	1497.8	1379.2	1276.5	1177.8	1079.7
47.5°	1880.6	1871.4	1856.8	1818.3	1740.9	1622.3	1485.9	1367.9	1269.9	1179.8	1093.0
50°	1838.9	1833.6	1822.3	1789.9	1720.3	1605.7	1475.2	1362.0	1268.5	1189.7	1111.6
52.5°	1834.9	1831.6	1817.7	1785.2	1714.4	1600.4	1473.9	1365.3	1279.8	1202.3	1124.8
55°	2242.3	2195.3	2089.9	2000.5	1853.5	1678.6	1540.8	1418.9	1327.5	1252.0	1197.7
57.5°	3186.9	3116.7	2978.3	2808.1	2470.2	2138.4	1872.7	1680.6	1585.8	1551.4	1572.0
60°	3629.4	3616.8	3595.0	3514.2	3341.3	3055.8	2737.8	2394.0	2256.2	2244.3	2286.1
62.5°	3839.4	3831.5	3838.1	3828.1	3774.5	3691.0	3599.6	3451.3	3314.8	3226.7	3039.9
65°	3936.1	3941.4	3979.2	4009.0	4015.6	4037.5	4104.4	4289.2	4424.3	4197.1	3678.5
67.5°	3690.4	3721.5	3808.3	3916.9	4044.1	4167.3	4366.1	4755.6	5033.1	4766.2	4029.6
69°	3055.1	3070.4	3282.3	3487.0	3797.7	4015.0	4303.1	4813.9	5125.9	4824.5	4001.7
70°	2405.3	2419.2	2646.4	2924.6	3450.0	3729.5	4106.4	4715.2	5039.1	4746.9	3858.7
72.5°	1085.0	1065.2	1145.4	1294.4	1865.4	2309.2	2968.4	3820.2	4157.4	3803.0	2886.9
75°	757.8	749.2	757.8	758.5	847.2	1093.0	1379.2	2070.8	2560.9	2209.8	1379.2
77.5°	586.9	580.9	575.0	568.4	579.0	648.5	676.3	734.6	953.9	902.2	526.0
80°	464.4	459.1	473.6	469.0	469.0	476.9	471.6	449.8	408.7	378.9	339.2
82.5°	215.9	217.2	217.2	235.8	284.2	331.9	347.1	325.2	288.8	245.7	198.1
85°	20.6	23.2	39.1	60.3	119.9	135.2	135.8	112.6	112.6	88.8	71.6
87.5°	0.0	0.7	0.7	0.7	6.0	16.6	13.9	4.0	2.0	2.0	3.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P162650
 CATALOG NUMBER: EMM-F03-LED-E1-SL4-HSS-8030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	305.4	305.4	305.4	305.4	305.4	305.4	305.4	305.4	305.4	305.4	305.4
2.5°	352.4	350.5	342.4	334.5	327.3	319.3	312.0	304.7	296.7	290.8	283.5
5°	412.0	397.5	380.9	365.0	349.1	332.6	315.3	300.1	284.2	269.6	255.7
7.5°	472.3	443.8	421.3	392.8	367.0	341.1	317.3	292.8	270.3	249.1	229.2
10°	523.3	488.9	453.8	417.3	380.2	345.8	312.7	283.5	253.7	227.9	203.4
12.5°	565.1	521.3	478.2	432.5	390.8	347.1	306.1	271.0	235.8	206.7	181.5
15°	602.8	552.4	500.8	447.8	394.8	345.1	299.4	255.7	220.0	186.8	158.3
17.5°	633.3	575.6	517.3	457.8	400.8	342.4	290.8	245.1	203.4	168.9	141.1
20°	659.8	599.5	536.6	469.7	404.7	341.8	283.5	231.9	188.8	152.4	125.2
22.5°	684.3	624.0	556.4	484.9	410.7	341.1	276.9	221.9	176.2	139.8	112.6
25°	712.1	648.5	577.7	500.8	421.3	343.8	272.9	214.0	164.9	127.9	102.7
27.5°	743.3	676.3	602.8	520.7	435.2	349.1	271.6	205.3	155.0	116.6	94.8
30°	787.0	709.5	628.0	540.5	447.8	355.1	270.3	200.0	145.1	108.0	86.7
32.5°	825.4	742.0	655.8	561.1	461.7	361.0	269.6	192.8	135.8	99.4	80.8
35°	865.8	771.7	679.7	580.9	473.6	367.7	268.9	187.5	127.2	90.8	74.8
37.5°	900.9	796.9	698.2	598.1	486.9	373.6	269.6	182.8	119.2	83.5	69.5
40°	930.7	822.7	718.8	614.1	500.8	382.9	270.3	178.2	111.3	76.8	64.9
42.5°	957.2	847.2	740.6	631.9	516.7	393.5	274.2	174.2	104.6	70.9	60.3
45°	977.7	869.7	764.5	657.2	542.5	410.7	281.6	171.5	98.0	65.6	56.3
47.5°	998.9	902.9	804.9	696.9	580.3	437.9	294.1	170.9	92.7	61.6	53.0
50°	1028.1	936.0	840.6	737.3	614.7	465.7	309.4	171.5	86.1	57.6	49.7
52.5°	1049.3	969.8	887.0	807.5	696.9	550.5	368.3	183.5	82.8	54.3	45.7
55°	1174.5	1160.6	1162.6	1175.8	1090.4	936.7	616.1	265.0	97.4	61.6	45.1
57.5°	1656.1	1705.1	1733.5	1732.9	1591.8	1320.2	827.4	340.5	108.6	71.6	53.6
60°	2289.3	2252.3	2199.9	2070.8	1883.3	1507.0	925.4	366.3	94.1	57.0	49.1
62.5°	2849.1	2631.8	2439.1	2229.8	1984.0	1572.0	945.3	364.3	82.1	43.1	34.4
65°	3198.2	2807.4	2496.1	2233.7	1944.2	1517.6	894.3	334.5	69.5	35.1	28.5
67.5°	3281.7	2712.7	2272.1	1937.6	1624.3	1181.1	656.5	251.7	54.3	29.1	25.2
69°	3099.5	2411.3	1882.6	1503.1	1181.8	783.6	406.1	159.0	41.7	26.5	23.2
70°	2851.1	2097.2	1533.5	1206.3	875.1	550.5	284.2	112.0	33.8	24.5	21.2
72.5°	1834.3	1101.6	753.9	524.6	361.0	219.3	111.3	50.4	25.8	20.6	17.2
75°	711.4	407.4	295.4	224.6	175.6	121.9	67.6	32.5	21.9	17.2	13.2
77.5°	350.5	268.3	219.3	150.4	87.4	54.3	36.4	25.2	17.9	12.6	8.6
80°	276.9	184.1	109.9	68.2	51.7	39.1	27.8	20.6	13.2	7.9	6.0
82.5°	141.8	77.5	57.0	46.4	38.4	30.4	22.5	14.6	8.6	5.3	4.7
85°	44.4	32.5	29.1	28.5	26.5	21.9	15.9	9.3	5.3	3.3	3.3
87.5°	3.3	4.7	6.0	4.7	5.3	4.7	6.0	4.0	2.6	2.6	2.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P162650
 CATALOG NUMBER: EMM-F03-LED-E1-SL4-HSS-8030

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	305.4	305.4	305.4	305.4	305.4	305.4	305.4	305.4	305.4	305.4	305.4
2.5°	278.2	270.3	263.0	258.3	249.7	246.4	243.1	241.8	235.8	237.2	231.9
5°	243.1	229.2	218.6	208.0	198.1	190.8	184.8	177.5	171.5	168.9	163.6
7.5°	211.3	193.4	179.5	168.3	156.3	147.1	139.1	133.8	128.5	123.2	120.5
10°	183.5	164.3	148.4	137.1	125.8	117.9	112.0	108.0	104.6	102.7	102.0
12.5°	157.7	139.1	124.5	114.6	106.0	102.0	99.4	97.4	96.7	96.1	96.1
15°	137.8	119.2	108.0	100.7	96.7	94.8	94.1	92.7	91.4	90.8	90.8
17.5°	119.2	105.3	97.4	93.4	91.4	90.1	88.8	87.4	86.1	85.4	85.4
20°	106.7	95.4	91.4	88.8	86.7	85.4	83.5	82.1	81.4	80.8	80.1
22.5°	96.7	89.5	86.7	84.8	82.1	80.1	78.8	77.5	76.2	75.5	74.8
25°	89.5	84.8	82.8	80.1	77.5	75.5	73.5	71.6	70.2	69.5	68.2
27.5°	84.1	80.8	78.2	74.8	72.2	70.2	68.2	66.3	64.9	63.6	62.9
30°	79.5	76.2	72.9	70.2	66.9	64.9	62.3	60.3	59.6	58.3	57.0
32.5°	74.8	71.6	68.2	64.9	61.6	58.9	57.6	55.0	53.6	53.0	51.7
35°	69.5	66.3	62.3	59.6	56.3	53.6	51.7	49.7	48.4	47.0	46.4
37.5°	64.9	61.0	57.0	53.6	51.0	48.4	46.4	44.4	43.1	41.7	41.0
40°	59.6	55.7	51.7	48.4	45.7	43.8	41.7	39.7	38.4	37.8	37.8
42.5°	55.0	50.4	46.4	43.8	41.7	39.1	37.1	35.1	34.4	33.8	34.4
45°	50.4	45.7	42.4	39.7	37.8	35.1	33.1	31.8	31.1	31.8	32.5
47.5°	46.4	41.7	38.4	36.4	34.4	32.5	30.4	29.1	29.1	30.4	31.8
50°	42.4	37.8	35.1	33.8	31.8	29.8	27.2	26.5	27.2	28.5	29.8
52.5°	38.4	33.1	31.1	30.4	28.5	26.5	24.5	23.8	24.5	25.8	25.2
55°	34.4	29.1	28.5	27.8	25.8	23.2	21.2	21.2	21.2	20.6	19.2
57.5°	33.1	25.8	25.2	24.5	22.5	19.9	18.5	17.2	16.6	14.6	13.9
60°	34.4	23.2	23.2	21.9	19.9	17.2	15.3	13.2	11.9	10.6	10.6
62.5°	27.8	21.2	20.6	19.2	16.6	13.9	11.9	10.0	9.3	8.6	8.6
65°	22.5	19.2	17.9	15.9	13.9	11.3	9.3	7.9	7.3	7.3	7.9
67.5°	20.6	17.2	15.3	13.2	11.3	8.6	7.3	6.6	6.6	7.3	7.3
69°	19.2	15.9	13.9	11.9	10.0	7.9	6.6	6.6	6.6	6.6	7.3
70°	17.9	15.3	13.2	11.3	8.6	6.6	6.0	6.0	6.6	6.6	7.3
72.5°	13.9	11.9	11.3	9.3	6.6	6.0	5.3	6.0	6.0	6.6	6.6
75°	10.6	8.6	8.6	7.3	5.3	4.7	4.7	5.3	5.3	6.0	6.0
77.5°	7.3	6.0	6.0	5.3	4.7	4.0	4.0	4.7	5.3	5.3	6.0
80°	5.3	4.7	4.0	4.7	4.0	3.3	4.0	4.7	4.7	5.3	5.3
82.5°	4.0	4.0	4.0	4.0	3.3	3.3	4.0	4.0	4.7	5.3	5.3
85°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.0	4.0	4.7	4.7
87.5°	2.0	2.0	2.0	2.6	2.6	3.3	3.3	3.3	3.3	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P162650
 CATALOG NUMBER: EMM-F03-LED-E1-SL4-HSS-8030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	305.4	305.4	305.4	305.4
2.5°	230.5	229.9	227.2	227.9
5°	161.6	157.7	160.3	159.6
7.5°	118.6	117.9	117.3	118.6
10°	101.4	101.4	100.7	101.4
12.5°	95.4	95.4	95.4	95.4
15°	90.8	90.8	90.1	90.1
17.5°	85.4	85.4	85.4	84.8
20°	80.1	79.5	79.5	79.5
22.5°	74.2	73.5	73.5	73.5
25°	68.2	67.6	67.6	67.6
27.5°	62.3	61.6	61.0	61.0
30°	56.3	55.7	55.0	55.0
32.5°	50.4	49.7	49.1	49.1
35°	45.1	45.1	44.4	43.8
37.5°	40.4	40.4	40.4	40.4
40°	37.1	37.8	37.8	37.8
42.5°	35.1	35.7	36.4	37.1
45°	33.8	35.1	35.7	35.7
47.5°	33.1	33.8	34.4	34.4
50°	30.4	29.8	29.8	29.8
52.5°	24.5	23.2	22.5	21.9
55°	17.9	17.2	15.9	15.9
57.5°	12.6	12.6	11.9	11.9
60°	10.0	10.0	9.3	10.0
62.5°	8.6	8.6	8.6	8.6
65°	7.9	7.9	7.9	7.9
67.5°	7.9	7.9	7.9	7.9
69°	7.3	7.3	7.3	7.3
70°	7.3	7.3	7.3	7.3
72.5°	6.6	6.6	6.6	6.6
75°	6.0	6.6	6.6	6.6
77.5°	6.0	6.0	6.0	6.0
80°	5.3	5.3	6.0	6.0
82.5°	5.3	5.3	5.3	5.3
85°	4.7	4.7	5.3	5.3
87.5°	4.0	4.0	4.7	4.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)