

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: P162322

Luminaire Tested: **EMM-F02-LED-E1-SL2-HSS**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162322
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33726)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: EMM-F02-LED-E1-SL2-HSS
Description: EPIC MODERN MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (14) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2878.3 lumens
Efficiency: N/A
Efficacy: 52.3 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 55
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

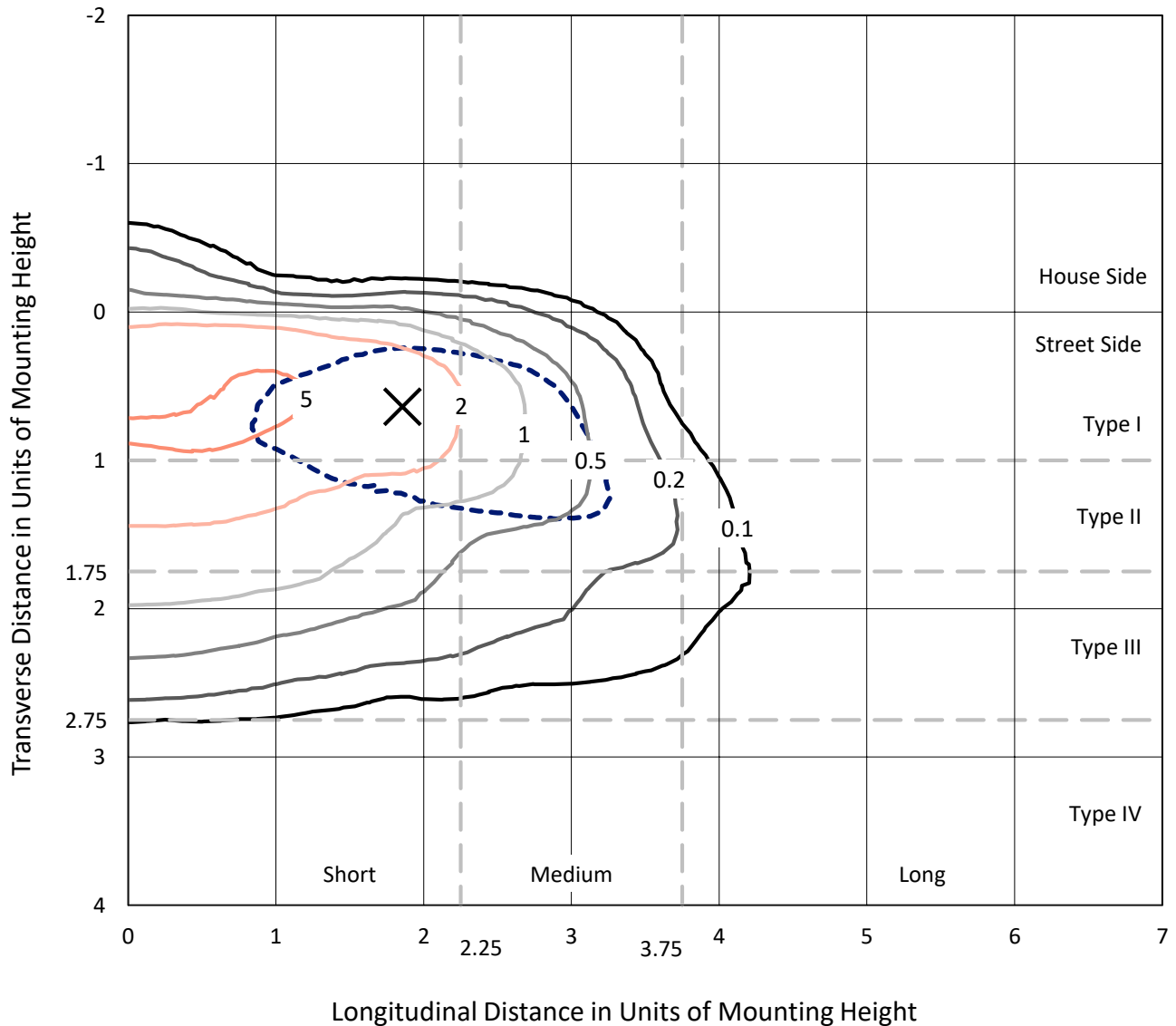


REPORT NUMBER: P162322

CATALOG NUMBER: EMM-F02-LED-E1-SL2-HSS

Iso-Footcandle Lines of Horizontal Illumination

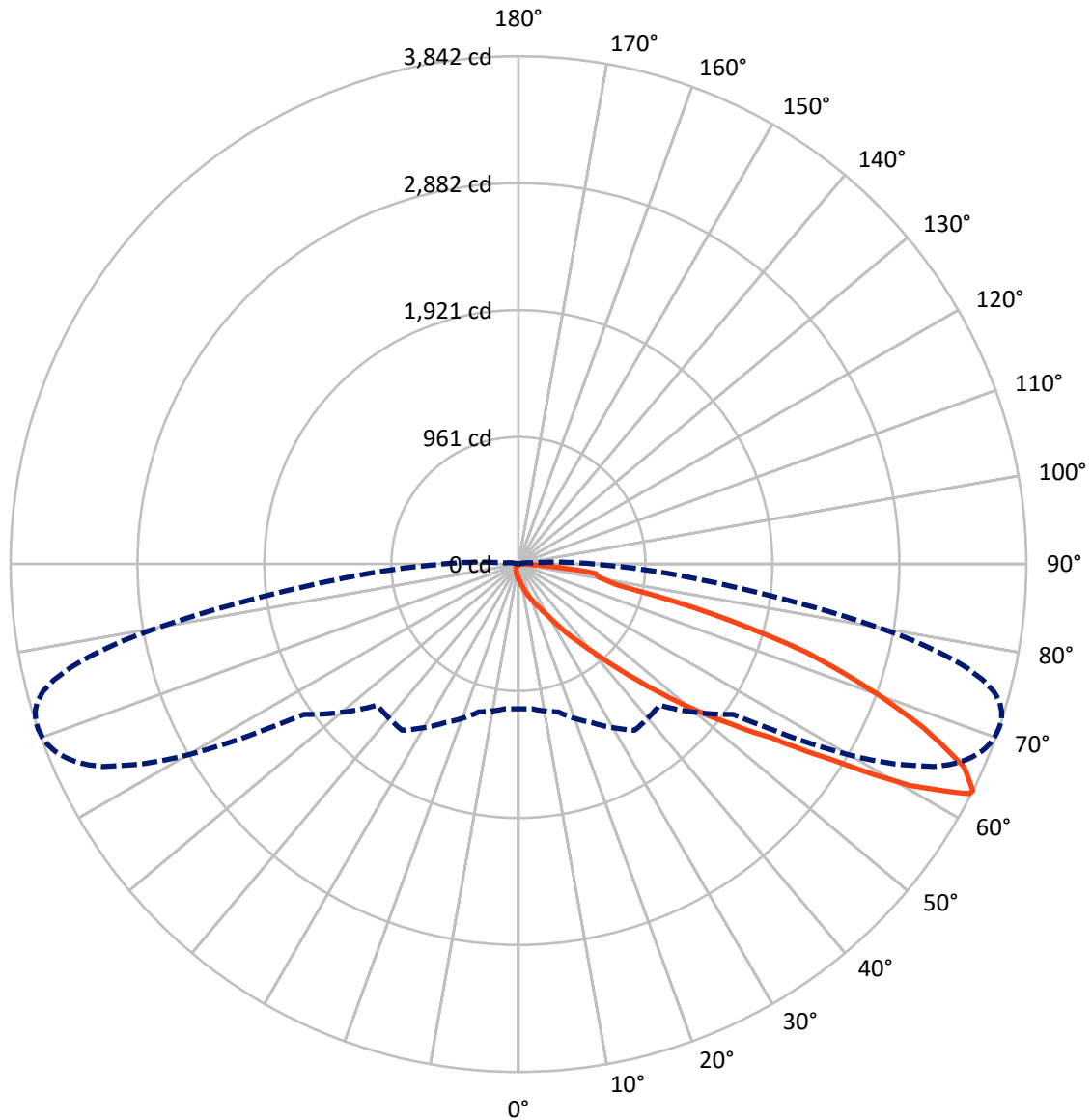
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.1 fc
 Type II - Short - Non-Cutoff

REPORT NUMBER: P162322
CATALOG NUMBER: EMM-F02-LED-E1-SL2-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

REPORT NUMBER: P162322

CATALOG NUMBER: EMM-F02-LED-E1-SL2-HSS

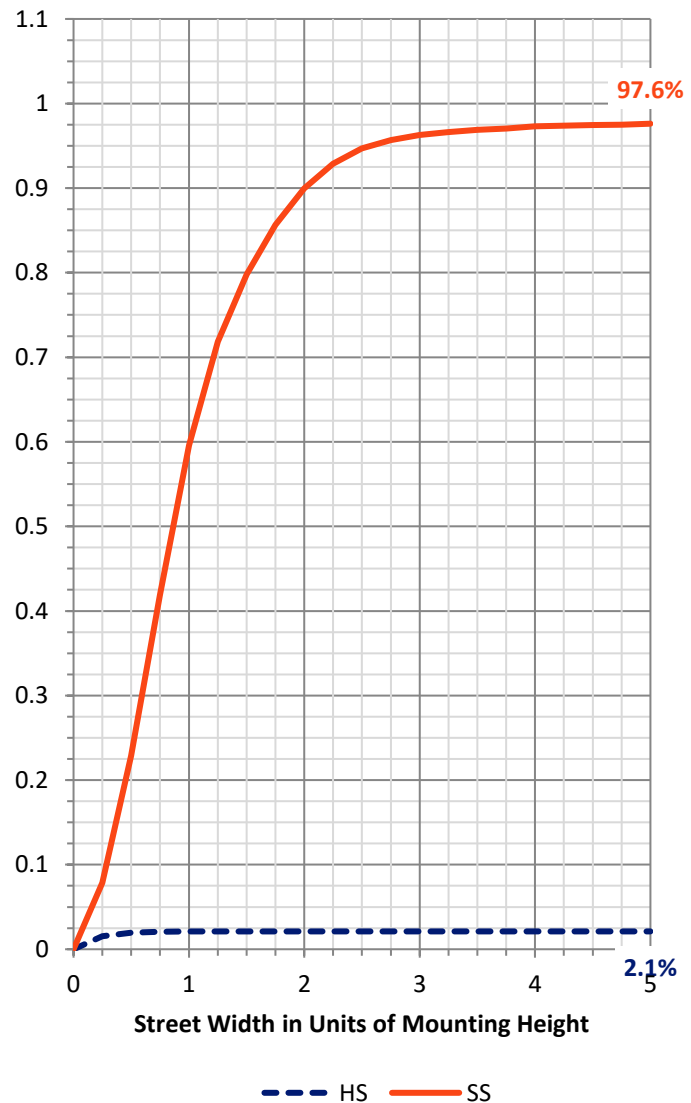
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	61.1	0.0	61.1
	% Fixture	2.1	0.0	2.1
Street Side	Lumens	2817.2	0.0	2817.2
	% Fixture	97.9	0.0	97.9
Total	Lumens	2878.3	0.0	2878.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.2	0.4
10°-20°	47.3	1.6
20°-30°	96.1	3.3
30°-40°	234.9	8.2
40°-50°	525.2	18.2
50°-60°	738.5	25.7
60°-70°	868.5	30.2
70°-80°	313.6	10.9
80°-90°	41.9	1.5
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°	2878.3	100.0
0°-180°	2878.3	100.0



REPORT NUMBER: P162322

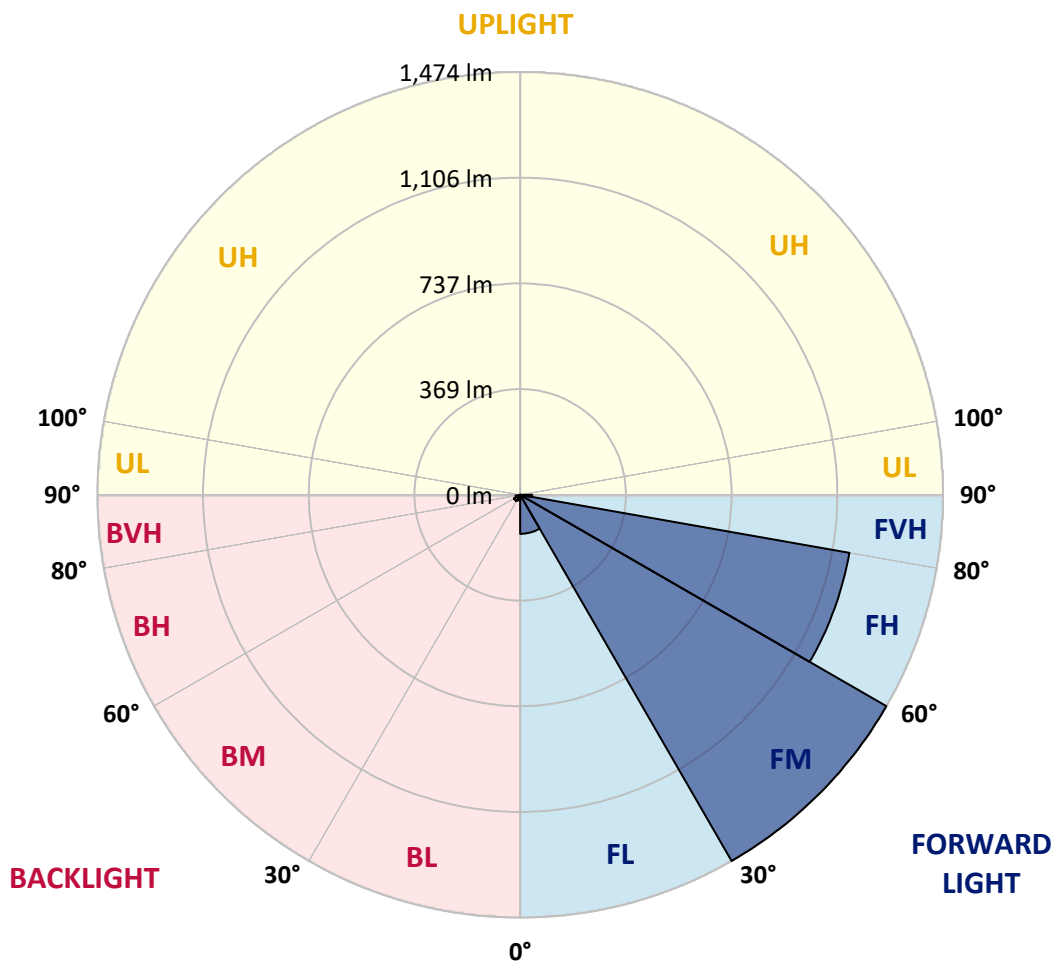
CATALOG NUMBER: EMM-F02-LED-E1-SL2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	136.0	4.7			
FM	(30°-60°)	1474.0	51.2			
FH	(60°-80°)	1165.3	40.5			G1/1800
FVH	(80°-90°)	41.8	1.5			G1/100
BL	(0°-30°)	19.6	0.7	B0/110		
BM	(30°-60°)	24.6	0.9	B0/220		
BH	(60°-80°)	16.8	0.6	B0/110		G0/110
BVH	(80°-90°)	0.1	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Short





REPORT NUMBER: P162322

CATALOG NUMBER: EMM-F02-LED-E1-SL2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	110.4	110.4	110.4	110.4	110.4	110.4	110.4	110.4	110.4	110.4	110.4
2.5°	144.4	146.0	145.0	142.3	139.2	135.0	131.3	131.3	130.8	129.2	129.8
5°	189.4	189.9	187.8	181.6	175.8	166.9	157.0	155.9	154.9	153.3	152.8
7.5°	233.3	235.4	233.3	226.6	215.1	201.4	185.7	184.2	181.1	181.1	179.0
10°	278.4	278.4	276.3	268.4	257.9	238.6	218.7	216.1	212.4	211.4	208.3
12.5°	310.3	310.3	309.2	305.1	296.7	279.4	255.4	252.7	248.0	246.4	242.8
15°	322.8	322.8	323.4	327.0	327.6	319.7	294.6	292.5	287.8	283.6	282.1
17.5°	330.7	330.2	330.2	335.4	344.8	350.1	333.8	331.8	326.5	324.4	319.2
20°	348.0	346.9	343.7	343.7	352.7	371.0	371.0	370.4	364.7	363.1	360.5
22.5°	373.6	372.5	363.1	355.3	359.5	382.5	404.0	402.9	400.8	398.7	397.1
25°	415.5	411.8	395.6	372.5	368.9	393.5	429.1	431.7	433.2	433.2	434.3
27.5°	478.7	474.1	445.3	402.4	386.2	411.3	456.8	462.0	466.8	467.8	472.5
30°	566.7	558.3	517.0	454.2	417.1	437.4	497.6	503.4	510.2	512.3	519.6
32.5°	711.1	706.4	666.6	572.4	492.9	488.7	554.6	562.0	570.9	574.5	583.4
35°	930.9	931.9	899.5	814.7	704.8	647.3	656.7	663.0	666.1	677.1	681.8
37.5°	1080.0	1082.6	1089.9	1056.5	978.0	919.4	845.6	852.4	836.1	837.7	838.2
40°	1161.6	1170.0	1212.9	1245.3	1239.1	1205.0	1145.9	1149.6	1119.2	1112.4	1079.5
42.5°	1216.1	1227.0	1295.6	1396.0	1447.3	1478.2	1464.6	1463.0	1439.4	1430.6	1402.8
45°	1250.1	1260.0	1346.3	1494.4	1612.6	1702.7	1739.8	1744.0	1724.1	1715.2	1692.2
47.5°	1248.5	1260.0	1352.6	1531.0	1705.3	1849.2	1953.8	1959.0	1971.1	1963.3	1964.8
50°	1179.4	1190.4	1283.5	1468.8	1678.1	1916.2	2107.7	2124.4	2143.8	2156.8	2163.1
52.5°	1095.7	1103.6	1186.2	1362.0	1561.9	1888.4	2198.7	2227.5	2256.3	2280.9	2298.1
55°	1064.8	1073.7	1138.6	1284.6	1468.8	1772.2	2241.1	2283.5	2324.3	2364.6	2397.5
57.5°	1081.1	1089.4	1136.0	1248.0	1413.3	1649.8	2253.1	2319.1	2386.0	2451.4	2516.3
60°	1140.7	1149.6	1189.4	1282.0	1398.7	1579.2	2206.0	2315.4	2426.8	2540.9	2648.2
62.5°	1117.2	1120.8	1179.4	1341.6	1503.3	1519.0	2034.9	2187.7	2357.8	2533.6	2706.8
63°	1094.6	1098.8	1158.5	1325.4	1535.2	1510.1	1982.1	2143.2	2322.7	2512.1	2700.5
65°	992.6	993.1	1038.7	1170.5	1499.6	1525.8	1746.6	1900.5	2106.6	2333.7	2571.8
67.5°	740.9	737.2	781.2	881.7	1177.3	1526.3	1499.1	1585.4	1728.8	1930.3	2143.8
70°	262.7	256.9	328.1	467.2	733.6	1248.5	1288.3	1294.0	1333.8	1442.6	1576.5
72.5°	85.3	86.8	104.7	171.1	338.0	840.3	1166.3	1148.5	1138.1	1137.6	1155.3
75°	34.0	34.6	41.9	75.9	151.7	405.0	1021.4	1031.3	1035.0	1040.2	1046.0
77.5°	16.2	17.8	23.6	42.4	75.3	200.4	731.0	815.2	863.4	900.5	923.0
80°	5.8	6.8	13.1	26.1	35.1	92.1	385.1	464.7	535.3	626.4	704.8
82.5°	0.0	0.0	2.6	18.3	19.4	37.1	158.0	185.2	211.9	274.7	352.7
85°	0.0	0.0	0.0	5.2	5.8	6.3	53.4	64.3	72.2	84.3	97.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.6	3.1	7.9	12.1
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: P162322

CATALOG NUMBER: EMM-F02-LED-E1-SL2-HSS

CANDELA DISTRIBUTION (continued):

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	110.4	110.4	110.4	110.4	110.4	110.4	110.4	110.4	110.4	110.4	110.4
2.5°	128.7	128.2	128.2	127.1	126.6	125.6	125.0	123.5	122.9	122.9	122.9
5°	152.3	150.2	149.1	146.5	145.0	144.4	141.8	140.8	139.2	139.7	137.1
7.5°	178.4	174.8	173.2	169.5	168.5	164.8	163.8	161.1	159.6	156.5	155.4
10°	207.2	202.5	199.9	194.1	192.6	189.9	186.8	183.7	181.1	177.9	176.3
12.5°	240.2	236.0	233.9	226.0	222.4	218.7	214.5	210.3	206.2	203.5	199.9
15°	278.9	272.1	270.0	262.7	256.4	251.7	246.0	240.7	237.5	232.3	228.7
17.5°	317.1	310.3	308.7	297.7	290.9	287.8	281.5	274.7	269.0	263.7	257.9
20°	355.3	350.6	346.4	335.9	328.6	323.4	315.0	308.2	303.5	296.1	288.8
22.5°	393.5	388.8	385.6	374.6	367.9	360.5	353.2	345.9	339.1	330.2	321.8
25°	432.7	429.6	428.0	418.1	411.8	405.0	397.7	389.3	381.0	371.0	362.1
27.5°	473.5	474.6	471.4	469.3	462.6	457.8	446.3	440.6	434.3	422.3	411.3
30°	525.4	528.5	527.5	529.0	524.8	521.7	512.8	505.4	498.1	486.6	474.1
32.5°	590.7	594.9	597.0	602.8	600.7	599.7	597.0	586.6	581.3	561.5	556.2
35°	691.7	689.6	698.6	703.2	701.1	700.1	697.0	691.2	684.9	670.8	657.7
37.5°	823.0	825.1	828.3	818.9	812.6	812.1	802.7	796.9	788.0	772.3	756.6
40°	1063.8	1050.7	1036.0	996.2	979.0	969.1	941.3	933.5	918.3	896.9	880.6
42.5°	1376.6	1363.6	1319.6	1253.2	1217.6	1168.4	1145.9	1118.2	1096.7	1061.7	1042.9
45°	1687.5	1649.8	1644.6	1567.1	1523.2	1458.3	1418.0	1371.4	1322.8	1276.8	1243.2
47.5°	1949.6	1941.2	1915.6	1868.5	1827.7	1773.3	1721.5	1649.8	1599.6	1534.2	1474.0
50°	2159.5	2158.9	2149.5	2122.3	2088.3	2044.3	1998.8	1938.1	1881.1	1801.0	1736.7
52.5°	2316.4	2324.8	2327.9	2319.6	2306.5	2267.8	2244.8	2194.0	2145.9	2077.8	2008.2
55°	2431.6	2462.4	2478.1	2495.9	2492.3	2478.7	2477.6	2444.7	2422.6	2368.8	2319.6
57.5°	2573.9	2624.6	2673.3	2759.6	2762.8	2793.1	2808.8	2824.5	2828.7	2807.2	2791.0
60°	2754.9	2858.5	2950.6	3131.1	3178.2	3252.5	3300.7	3353.0	3397.5	3401.1	3400.1
62.5°	2882.6	3042.2	3190.8	3458.7	3550.3	3636.1	3700.4	3751.2	3782.1	3813.4	3828.1
63°	2886.3	3061.0	3219.1	3495.3	3591.6	3673.2	3734.5	3781.5	3814.0	3832.8	3842.2
65°	2797.8	3009.8	3198.1	3473.3	3563.8	3646.0	3677.9	3708.8	3724.5	3731.8	3704.1
67.5°	2371.3	2578.6	2798.4	3106.0	3183.4	3281.8	3308.0	3323.7	3331.0	3329.5	3305.9
70°	1773.3	1947.0	2191.4	2543.0	2645.5	2741.8	2801.5	2827.1	2835.5	2832.9	2797.8
72.5°	1238.0	1340.0	1541.5	1932.9	2072.6	2196.1	2269.9	2308.1	2315.9	2300.2	2267.8
75°	1039.7	1044.9	1090.5	1304.4	1435.3	1567.1	1650.3	1674.4	1658.7	1611.1	1528.4
77.5°	928.2	939.8	939.8	971.7	997.3	1033.9	1041.8	983.2	915.2	827.3	756.1
80°	778.6	818.9	847.2	870.7	873.3	866.0	846.6	813.6	761.4	694.4	620.1
82.5°	473.0	552.6	585.0	706.4	766.0	806.3	803.2	759.3	719.5	649.9	586.6
85°	119.3	128.7	139.7	181.6	203.5	248.5	276.8	289.9	294.6	270.5	244.9
87.5°	11.5	7.9	13.1	10.0	14.1	10.5	14.1	13.1	16.2	17.3	18.8
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: P162322

CATALOG NUMBER: EMM-F02-LED-E1-SL2-HSS

CANDELA DISTRIBUTION (continued):

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	110.4	110.4	110.4	110.4	110.4	110.4	110.4	110.4	110.4	110.4	110.4
2.5°	121.9	121.4	120.9	120.4	119.8	119.3	118.3	118.3	117.2	116.7	116.2
5°	135.5	134.5	134.0	132.9	131.3	130.3	128.7	126.6	125.0	124.5	123.5
7.5°	152.8	150.2	149.1	147.5	145.5	142.3	140.2	138.7	136.0	134.5	131.3
10°	172.1	169.5	166.4	163.2	160.1	156.5	153.8	151.7	147.5	145.5	141.8
12.5°	196.8	192.0	188.4	184.2	180.0	175.8	172.7	166.4	162.7	158.0	154.9
15°	221.8	217.7	213.5	208.3	202.0	195.2	192.0	186.3	181.6	174.2	170.1
17.5°	252.2	244.4	238.1	231.8	226.0	219.8	213.5	204.6	197.8	191.5	183.2
20°	282.1	272.6	265.8	257.5	249.1	239.1	231.8	225.5	216.1	207.8	198.8
22.5°	314.0	304.5	293.6	285.2	273.6	265.8	255.9	245.4	236.0	225.0	214.0
25°	352.7	342.7	330.2	319.2	306.1	295.1	283.1	271.0	259.5	247.0	232.9
27.5°	400.3	389.8	376.2	363.1	345.9	332.2	320.7	304.5	289.9	274.2	257.9
30°	460.5	449.0	432.2	413.4	396.1	381.0	364.7	343.3	327.0	308.2	287.3
32.5°	539.0	525.4	502.9	485.1	463.6	443.7	421.2	399.8	376.7	352.2	328.1
35°	637.9	625.3	599.1	573.0	549.4	525.9	497.6	473.0	440.6	410.7	379.9
37.5°	740.4	717.9	693.8	665.6	636.3	608.0	573.5	539.5	502.3	469.9	431.1
40°	857.6	830.4	810.5	780.2	738.8	698.6	666.6	624.3	577.6	534.2	488.7
42.5°	1018.3	987.9	952.3	906.3	876.4	829.4	788.0	737.8	676.5	627.9	573.0
45°	1204.0	1162.7	1128.1	1083.6	1047.5	988.9	940.8	873.8	812.6	748.8	681.8
47.5°	1415.9	1364.6	1314.4	1270.4	1212.9	1155.3	1094.1	1022.9	944.5	874.3	794.8
50°	1659.3	1586.5	1516.9	1460.4	1381.4	1315.0	1248.5	1168.4	1081.5	1001.0	910.4
52.5°	1929.7	1845.5	1753.4	1666.6	1575.0	1489.7	1409.6	1317.5	1220.7	1122.4	1021.4
55°	2256.3	2192.9	2084.6	1974.2	1851.8	1737.7	1634.6	1520.6	1402.8	1273.6	1167.3
57.5°	2767.5	2736.6	2646.1	2535.7	2376.1	2237.4	2062.7	1922.9	1752.4	1574.4	1437.3
60°	3460.3	3422.1	3371.3	3281.8	3155.2	2966.8	2774.3	2557.1	2297.6	2051.2	1817.3
62.5°	3829.7	3816.1	3774.7	3713.0	3594.7	3446.1	3252.0	3013.4	2720.4	2421.1	2122.8
63°	3840.7	3823.4	3787.8	3725.0	3620.9	3477.0	3286.5	3054.7	2768.0	2462.9	2158.4
65°	3692.1	3685.3	3649.2	3580.6	3509.4	3399.6	3252.0	3052.6	2812.0	2523.6	2220.7
67.5°	3274.5	3254.1	3198.6	3177.7	3128.0	3051.6	2939.1	2802.0	2629.8	2403.3	2141.7
70°	2769.6	2739.2	2669.6	2632.5	2571.8	2523.6	2455.1	2357.3	2251.0	2093.0	1897.8
72.5°	2234.3	2171.5	2107.7	2010.9	1926.1	1840.3	1764.4	1695.4	1578.6	1514.8	1366.7
75°	1451.0	1336.9	1227.6	1081.1	949.2	832.5	718.9	661.4	541.5	492.9	423.3
77.5°	688.6	624.8	539.0	472.5	387.7	316.6	258.5	194.1	152.3	119.3	91.0
80°	555.7	501.8	450.0	389.8	326.0	260.0	199.3	149.1	105.7	73.3	51.8
82.5°	495.5	436.9	373.1	331.8	288.3	236.0	193.6	158.0	116.7	85.3	58.1
85°	192.6	162.2	125.0	102.0	79.5	65.4	59.1	40.8	31.9	25.1	19.4
87.5°	16.7	13.6	11.0	7.3	7.9	4.2	4.7	3.1	2.6	2.6	2.1
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: P162322

CATALOG NUMBER: EMM-F02-LED-E1-SL2-HSS

CANDELA DISTRIBUTION (continued):

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	110.4	110.4	110.4	110.4	110.4	110.4	110.4	110.4	110.4	110.4	110.4
2.5°	115.6	115.1	114.6	113.5	113.5	112.5	112.0	111.4	108.9	103.1	98.3
5°	121.4	120.4	119.3	117.7	116.7	115.1	114.1	112.5	106.8	95.8	86.3
7.5°	129.8	127.7	126.1	122.9	121.4	119.3	117.7	115.1	105.7	88.9	75.9
10°	139.7	136.0	133.4	129.8	126.6	124.0	121.4	117.7	104.7	81.6	66.4
12.5°	151.7	147.5	142.3	138.1	134.0	130.3	126.6	121.9	103.1	75.3	59.1
15°	163.8	157.5	153.8	148.1	142.3	137.1	131.9	127.7	103.6	68.5	52.8
17.5°	177.4	171.1	163.2	157.0	150.7	143.9	137.6	129.2	101.0	63.3	48.2
20°	190.5	181.6	174.2	166.4	157.5	149.1	141.3	134.0	98.9	58.1	44.0
22.5°	204.6	194.1	184.7	174.8	163.8	154.4	145.0	135.5	95.2	53.4	40.3
25°	221.8	209.8	196.2	184.2	172.7	161.1	149.1	137.6	91.6	49.2	37.7
27.5°	242.8	227.1	213.5	198.3	182.1	167.4	154.4	141.8	87.9	46.1	35.1
30°	269.5	251.2	231.8	212.4	195.2	178.4	160.1	144.4	84.3	42.9	32.4
32.5°	305.1	282.1	258.5	236.0	213.0	191.5	172.1	151.7	82.2	40.3	29.8
35°	352.2	322.3	293.6	265.3	237.5	211.4	186.3	163.2	82.2	37.1	26.7
37.5°	396.6	362.1	325.5	290.4	257.5	227.1	197.2	169.5	78.0	34.6	24.1
40°	444.7	403.4	360.5	319.2	279.4	241.8	207.8	175.8	74.3	31.4	21.5
42.5°	518.5	466.2	410.2	362.1	314.5	267.9	225.5	187.8	69.6	28.2	18.8
45°	615.3	548.9	483.0	424.4	363.7	306.6	256.4	209.8	68.5	25.6	16.2
47.5°	718.9	640.4	563.0	488.2	417.1	350.6	290.4	234.4	68.5	23.0	14.1
50°	822.0	723.7	641.0	554.1	474.1	395.6	323.9	260.0	69.1	20.9	11.5
52.5°	915.2	810.0	717.4	616.9	528.5	437.4	359.5	285.2	68.0	18.3	9.4
55°	1044.4	920.9	813.6	702.7	599.1	496.6	408.1	322.8	68.5	16.2	7.9
57.5°	1282.5	1137.6	1008.3	862.8	743.5	611.2	503.9	400.3	74.8	13.6	5.8
60°	1624.2	1435.8	1254.2	1076.9	925.1	767.6	628.4	506.5	87.9	11.0	4.2
62.5°	1853.9	1607.4	1390.8	1195.1	1018.8	853.9	702.2	563.6	96.8	8.9	2.6
63°	1877.4	1622.6	1404.9	1203.0	1022.9	858.1	705.3	567.7	97.3	8.4	2.6
65°	1921.9	1648.7	1412.8	1204.5	1018.8	852.4	703.2	567.2	98.3	6.8	2.1
67.5°	1871.1	1608.5	1367.2	1159.5	982.2	818.4	677.1	546.3	97.9	4.7	1.6
70°	1673.3	1455.7	1243.8	1050.2	889.0	740.9	616.4	498.1	90.0	3.1	1.0
72.5°	1228.6	1080.5	916.2	776.5	669.8	556.2	474.6	374.1	69.6	2.1	0.6
75°	364.2	331.8	278.9	246.0	217.2	179.5	159.6	124.5	35.6	1.0	0.0
77.5°	72.8	65.9	59.1	53.9	50.7	43.4	41.3	34.0	14.6	0.6	0.0
80°	38.2	31.4	26.7	23.6	20.4	16.7	14.1	11.5	2.6	0.0	0.0
82.5°	36.7	24.6	17.8	14.6	12.5	10.0	7.9	5.8	1.6	0.0	0.0
85°	13.6	10.5	7.9	6.3	5.2	4.7	3.7	3.1	0.0	0.0	0.0
87.5°	2.1	1.6	1.6	1.0	1.0	0.6	0.6	0.6	0.0	0.0	0.0
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: P162322

CATALOG NUMBER: EMM-F02-LED-E1-SL2-HSS

CANDELA DISTRIBUTION (continued):

	125°	135°	145°	155°	165°	175°	180°
0°	110.4	110.4	110.4	110.4	110.4	110.4	110.4
2.5°	93.7	89.5	87.4	84.8	84.8	84.3	85.3
5°	78.0	72.2	68.0	64.9	65.4	63.8	64.3
7.5°	65.9	60.2	56.5	54.4	53.9	53.4	53.4
10°	57.0	51.8	48.7	47.1	46.6	46.6	46.6
12.5°	50.7	45.5	42.9	41.9	41.9	41.3	41.3
15°	45.5	41.3	38.7	37.7	37.7	37.1	37.7
17.5°	41.3	37.1	35.1	34.0	34.0	33.5	33.5
20°	37.7	34.0	31.9	30.3	30.3	29.8	30.3
22.5°	34.6	30.9	28.2	27.2	26.7	26.1	26.7
25°	31.4	27.7	25.1	23.6	23.0	23.0	22.5
27.5°	28.8	25.1	22.0	20.4	19.9	19.9	19.4
30°	26.1	22.0	18.8	17.3	16.7	16.7	16.7
32.5°	23.6	18.8	16.2	14.6	14.1	14.1	14.1
35°	20.9	16.2	13.6	12.1	11.5	11.5	11.5
37.5°	17.8	13.6	10.5	9.4	8.9	8.4	8.4
40°	15.2	10.5	7.9	6.8	5.8	5.8	5.8
42.5°	12.5	8.4	5.8	4.2	3.7	3.1	3.7
45°	10.5	6.3	3.7	2.1	1.6	1.6	1.6
47.5°	8.4	4.2	1.6	0.6	0.6	0.6	0.6
50°	6.3	2.6	0.6	0.0	0.0	0.6	0.6
52.5°	4.7	1.6	0.0	0.0	0.0	0.0	0.0
55°	2.6	0.6	0.0	0.0	0.0	0.0	0.0
57.5°	1.6	0.0	0.0	0.0	0.0	0.0	0.0
60°	1.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.6	0.0	0.0	0.0	0.0	0.0	0.0
63°	0.6	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.6	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)