

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: P162267

Luminaire Tested: **ECM-E01-LED-E1-SL2-HSS**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162267
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: ECM-E01-LED-E1-SL2-HSS
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (21) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1743.3 lumens
Efficiency: N/A
Efficacy: 70.6 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 1' x H: 0.1')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B0 - 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

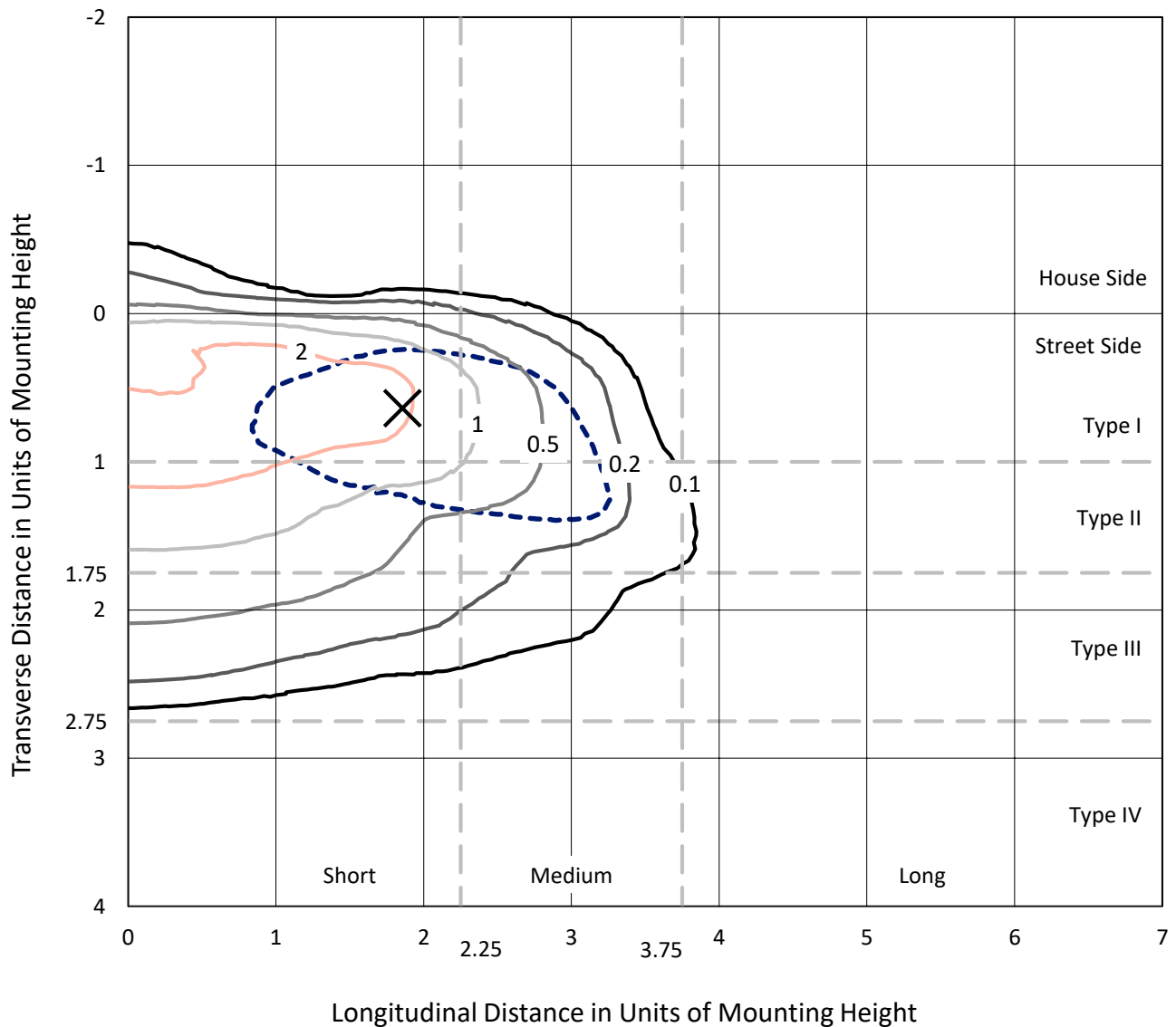


REPORT NUMBER: P162267

CATALOG NUMBER: ECM-E01-LED-E1-SL2-HSS

Iso-Footcandle Lines of Horizontal Illumination

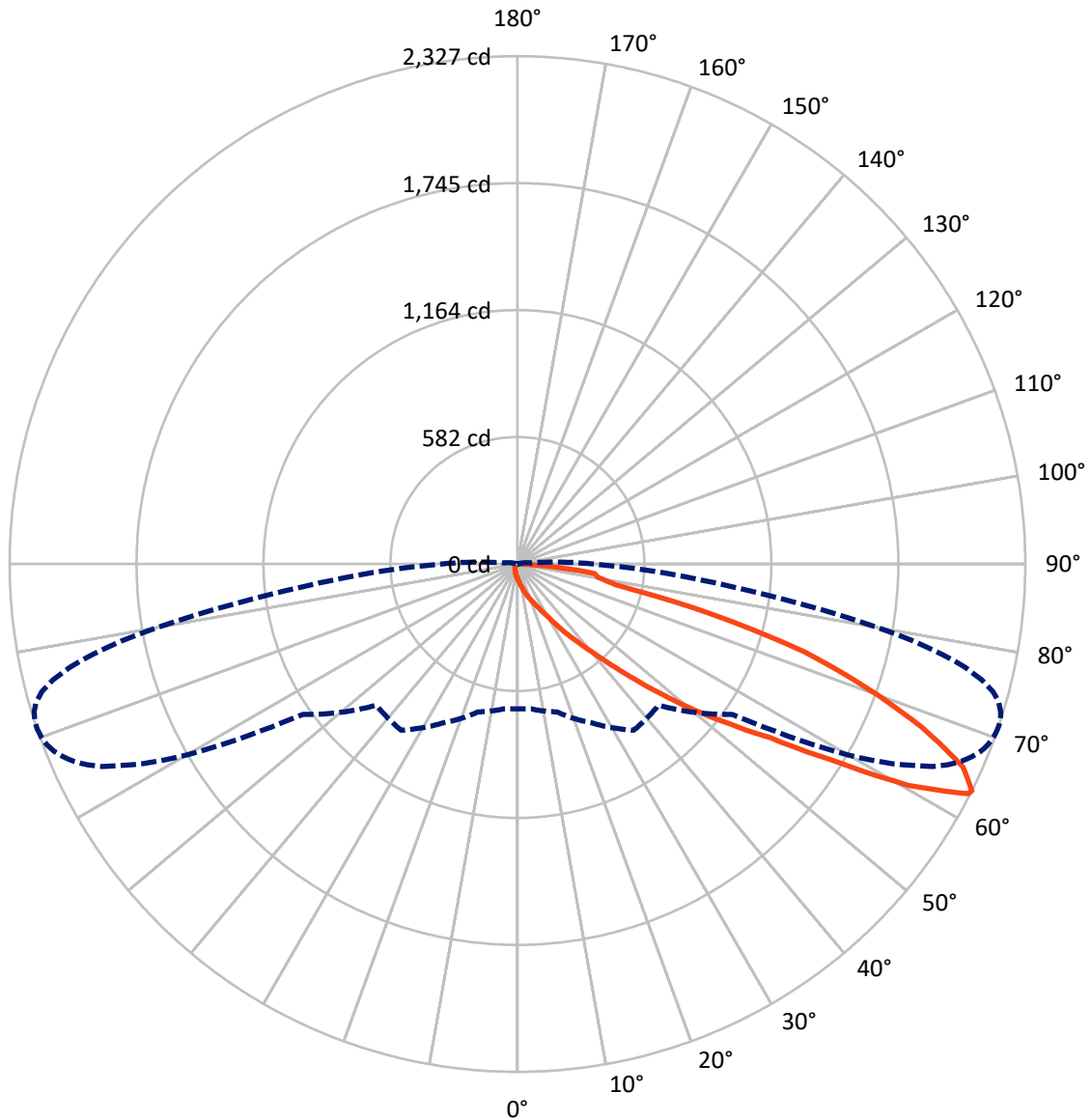
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.7 fc
 Type II - Short - Non-Cutoff

REPORT NUMBER: P162267
CATALOG NUMBER: ECM-E01-LED-E1-SL2-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P162267

CATALOG NUMBER: ECM-E01-LED-E1-SL2-HSS

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	37.0	0.0	37.0
	% Fixture	2.1	0.0	2.1
Street Side	Lumens	1706.3	0.0	1706.3
	% Fixture	97.9	0.0	97.9
Total	Lumens	1743.3	0.0	1743.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.4	0.4
10°-20°	28.7	1.6
20°-30°	58.2	3.3
30°-40°	142.2	8.2
40°-50°	318.1	18.2
50°-60°	447.3	25.7
60°-70°	526.0	30.2
70°-80°	189.9	10.9
80°-90°	25.4	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°	1743.3	100.0
0°-180°	1743.3	100.0



REPORT NUMBER: P162267

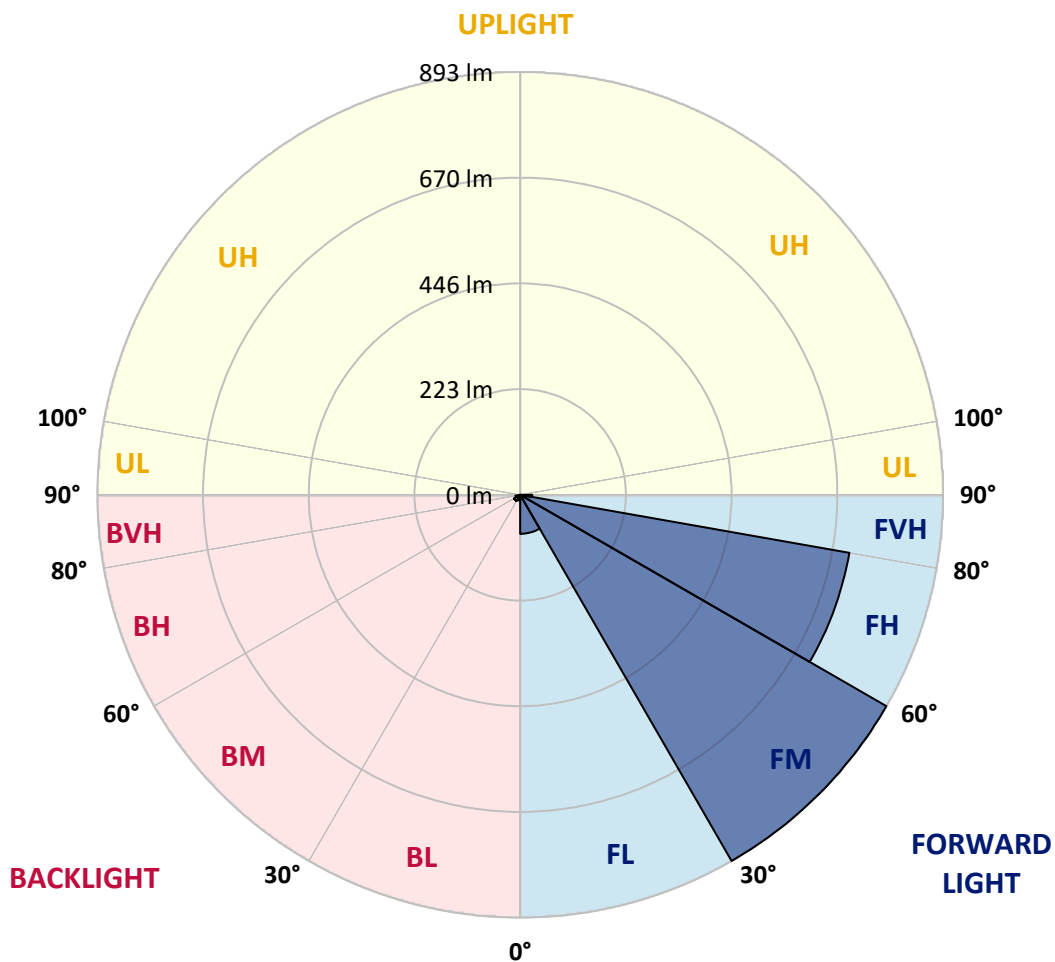
CATALOG NUMBER: ECM-E01-LED-E1-SL2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	82.4	4.7			
FM (30°-60°)	892.8	51.2			
FH (60°-80°)	705.8	40.5			G1/1800
FVH (80°-90°)	25.3	1.5			G1/100
BL (0°-30°)	11.9	0.7	B0/110		
BM (30°-60°)	14.9	0.9	B0/220		
BH (60°-80°)	10.1	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: P162267

CATALOG NUMBER: ECM-E01-LED-E1-SL2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9
2.5°	87.5	88.4	87.8	86.2	84.3	81.8	79.5	79.5	79.2	78.3	78.6
5°	114.7	115.0	113.8	110.0	106.5	101.1	95.1	94.4	93.8	92.9	92.5
7.5°	141.3	142.6	141.3	137.2	130.3	122.0	112.5	111.6	109.7	109.7	108.4
10°	168.6	168.6	167.3	162.6	156.2	144.5	132.5	130.9	128.7	128.0	126.1
12.5°	187.9	187.9	187.3	184.8	179.7	169.2	154.7	153.1	150.2	149.3	147.1
15°	195.5	195.5	195.9	198.1	198.4	193.6	178.4	177.2	174.3	171.8	170.8
17.5°	200.3	200.0	200.0	203.1	208.9	212.0	202.2	200.9	197.8	196.5	193.3
20°	210.8	210.1	208.2	208.2	213.6	224.7	224.7	224.4	220.9	219.9	218.4
22.5°	226.3	225.6	219.9	215.2	217.7	231.7	244.7	244.0	242.8	241.5	240.5
25°	251.6	249.4	239.6	225.6	223.4	238.3	259.9	261.5	262.4	262.4	263.0
27.5°	290.0	287.1	269.7	243.7	233.9	249.1	276.7	279.8	282.7	283.3	286.2
30°	343.2	338.2	313.1	275.1	252.6	264.9	301.4	304.9	309.0	310.3	314.7
32.5°	430.7	427.8	403.8	346.7	298.5	296.0	335.9	340.4	345.8	348.0	353.4
35°	563.8	564.4	544.8	493.4	426.9	392.0	397.7	401.5	403.4	410.1	412.9
37.5°	654.1	655.7	660.1	639.9	592.3	556.8	512.1	516.3	506.4	507.4	507.7
40°	703.6	708.6	734.6	754.3	750.5	729.9	694.1	696.3	677.9	673.8	653.8
42.5°	736.5	743.2	784.7	845.5	876.6	895.3	887.1	886.1	871.8	866.5	849.7
45°	757.1	763.1	815.4	905.1	976.7	1031.3	1053.8	1056.3	1044.3	1038.9	1024.9
47.5°	756.2	763.1	819.2	927.3	1032.8	1120.0	1183.4	1186.5	1193.8	1189.1	1190.0
50°	714.3	721.0	777.4	889.6	1016.4	1160.6	1276.6	1286.7	1298.4	1306.3	1310.1
52.5°	663.6	668.4	718.5	824.9	946.0	1143.8	1331.7	1349.1	1366.6	1381.5	1391.9
55°	644.9	650.3	689.6	778.0	889.6	1073.4	1357.4	1383.0	1407.8	1432.2	1452.1
57.5°	654.8	659.8	688.0	755.9	856.0	999.2	1364.7	1404.6	1445.2	1484.8	1524.1
60°	690.9	696.3	720.4	776.5	847.1	956.5	1336.1	1402.4	1469.9	1539.0	1603.9
62.5°	676.6	678.8	714.3	812.6	910.5	920.0	1232.5	1325.0	1428.0	1534.5	1639.4
63°	663.0	665.5	701.7	802.8	929.8	914.6	1200.5	1298.1	1406.8	1521.5	1635.6
65°	601.2	601.5	629.1	709.0	908.3	924.1	1057.9	1151.1	1275.9	1413.5	1557.7
67.5°	448.8	446.5	473.2	534.0	713.1	924.5	908.0	960.3	1047.1	1169.1	1298.4
70°	159.1	155.6	198.7	283.0	444.3	756.2	780.3	783.7	807.8	873.7	954.9
72.5°	51.7	52.6	63.4	103.6	204.7	509.0	706.4	695.6	689.3	689.0	699.8
75°	20.6	20.9	25.4	46.0	91.9	245.3	618.6	624.6	626.9	630.0	633.5
77.5°	9.8	10.8	14.3	25.7	45.6	121.4	442.7	493.8	522.9	545.4	559.0
80°	3.5	4.1	7.9	15.8	21.2	55.8	233.3	281.4	324.2	379.4	426.9
82.5°	0.0	0.0	1.6	11.1	11.7	22.5	95.7	112.2	128.4	166.4	213.6
85°	0.0	0.0	0.0	3.2	3.5	3.8	32.3	39.0	43.7	51.0	58.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	1.9	4.8	7.3
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: P162267

CATALOG NUMBER: ECM-E01-LED-E1-SL2-HSS

CANDELA DISTRIBUTION (continued):

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9
2.5°	78.0	77.6	77.6	77.0	76.7	76.1	75.7	74.8	74.5	74.5	74.5
5°	92.2	91.0	90.3	88.7	87.8	87.5	85.9	85.3	84.3	84.6	83.0
7.5°	108.1	105.9	104.9	102.7	102.0	99.8	99.2	97.6	96.7	94.8	94.1
10°	125.5	122.6	121.1	117.6	116.6	115.0	113.1	111.2	109.7	107.8	106.8
12.5°	145.5	142.9	141.7	136.9	134.7	132.5	129.9	127.4	124.9	123.3	121.1
15°	168.9	164.8	163.5	159.1	155.3	152.4	149.0	145.8	143.9	140.7	138.5
17.5°	192.1	187.9	187.0	180.3	176.2	174.3	170.5	166.4	162.9	159.7	156.2
20°	215.2	212.3	209.8	203.5	199.0	195.9	190.8	186.7	183.8	179.4	174.9
22.5°	238.3	235.5	233.6	226.9	222.8	218.4	213.9	209.5	205.4	200.0	194.9
25°	262.1	260.2	259.2	253.2	249.4	245.3	240.9	235.8	230.7	224.7	219.3
27.5°	286.8	287.4	285.5	284.3	280.2	277.3	270.3	266.8	263.0	255.8	249.1
30°	318.2	320.1	319.5	320.4	317.9	316.0	310.6	306.1	301.7	294.7	287.1
32.5°	357.8	360.3	361.6	365.1	363.8	363.2	361.6	355.3	352.1	340.1	336.9
35°	419.0	417.7	423.1	425.9	424.7	424.0	422.1	418.7	414.8	406.3	398.4
37.5°	498.5	499.8	501.7	496.0	492.2	491.9	486.2	482.7	477.3	467.8	458.3
40°	644.3	636.4	627.5	603.4	593.0	586.9	570.1	565.4	556.2	543.2	533.4
42.5°	833.8	825.9	799.3	759.0	737.5	707.7	694.1	677.3	664.3	643.0	631.6
45°	1022.1	999.2	996.1	949.2	922.6	883.3	858.9	830.6	801.2	773.3	753.0
47.5°	1180.8	1175.8	1160.2	1131.7	1107.0	1074.0	1042.7	999.2	968.8	929.2	892.8
50°	1307.9	1307.6	1301.9	1285.4	1264.8	1238.2	1210.6	1173.9	1139.3	1090.8	1051.9
52.5°	1403.0	1408.1	1410.0	1404.9	1397.0	1373.5	1359.6	1328.8	1299.7	1258.5	1216.3
55°	1472.7	1491.4	1500.9	1511.7	1509.5	1501.3	1500.6	1480.7	1467.3	1434.7	1404.9
57.5°	1558.9	1589.7	1619.1	1671.4	1673.3	1691.7	1701.2	1710.7	1713.3	1700.3	1690.5
60°	1668.6	1731.3	1787.1	1896.4	1925.0	1970.0	1999.1	2030.8	2057.8	2060.0	2059.3
62.5°	1745.9	1842.6	1932.6	2094.8	2150.3	2202.3	2241.3	2272.0	2290.7	2309.7	2318.6
63°	1748.1	1854.0	1949.7	2117.0	2175.3	2224.8	2261.9	2290.4	2310.0	2321.4	2327.1
65°	1694.6	1822.9	1937.0	2103.7	2158.5	2208.3	2227.6	2246.3	2255.8	2260.3	2243.5
67.5°	1436.3	1561.8	1694.9	1881.2	1928.1	1987.7	2003.6	2013.1	2017.5	2016.6	2002.3
70°	1074.0	1179.3	1327.3	1540.2	1602.3	1660.7	1696.8	1712.3	1717.4	1715.8	1694.6
72.5°	749.8	811.6	933.6	1170.7	1255.3	1330.1	1374.8	1397.9	1402.7	1393.2	1373.5
75°	629.7	632.9	660.5	790.1	869.3	949.2	999.6	1014.1	1004.6	975.8	925.7
77.5°	562.2	569.2	569.2	588.5	604.0	626.2	631.0	595.5	554.3	501.1	457.9
80°	471.6	496.0	513.1	527.4	528.9	524.5	512.8	492.8	461.1	420.6	375.6
82.5°	286.5	334.7	354.3	427.8	464.0	488.4	486.5	459.9	435.8	393.6	355.3
85°	72.3	78.0	84.6	110.0	123.3	150.5	167.7	175.6	178.4	163.8	148.3
87.5°	7.0	4.8	7.9	6.0	8.6	6.3	8.6	7.9	9.8	10.5	11.4
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: P162267

CATALOG NUMBER: ECM-E01-LED-E1-SL2-HSS

CANDELA DISTRIBUTION (continued):

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9
2.5°	73.8	73.5	73.2	72.9	72.6	72.3	71.6	71.6	71.0	70.7	70.4
5°	82.1	81.4	81.1	80.5	79.5	78.9	78.0	76.7	75.7	75.4	74.8
7.5°	92.5	91.0	90.3	89.4	88.1	86.2	84.9	84.0	82.4	81.4	79.5
10°	104.3	102.7	100.8	98.9	97.0	94.8	93.2	91.9	89.4	88.1	85.9
12.5°	119.2	116.3	114.1	111.6	109.0	106.5	104.6	100.8	98.6	95.7	93.8
15°	134.4	131.8	129.3	126.1	122.3	118.2	116.3	112.8	110.0	105.5	103.0
17.5°	152.8	148.0	144.2	140.4	136.9	133.1	129.3	123.9	119.8	116.0	110.9
20°	170.8	165.1	161.0	155.9	150.9	144.8	140.4	136.6	130.9	125.8	120.4
22.5°	190.2	184.4	177.8	172.7	165.7	161.0	155.0	148.6	142.9	136.3	129.6
25°	213.6	207.6	200.0	193.3	185.4	178.7	171.5	164.2	157.2	149.6	141.0
27.5°	242.4	236.1	227.9	219.9	209.5	201.2	194.3	184.4	175.6	166.1	156.2
30°	278.9	271.9	261.8	250.4	239.9	230.7	220.9	207.9	198.1	186.7	174.0
32.5°	326.4	318.2	304.6	293.8	280.8	268.7	255.1	242.1	228.2	213.3	198.7
35°	386.3	378.7	362.9	347.0	332.8	318.5	301.4	286.5	266.8	248.8	230.1
37.5°	448.4	434.8	420.2	403.1	385.4	368.3	347.3	326.7	304.2	284.6	261.1
40°	519.4	503.0	490.9	472.5	447.5	423.1	403.8	378.1	349.9	323.6	296.0
42.5°	616.7	598.3	576.8	548.9	530.8	502.3	477.3	446.9	409.8	380.3	347.0
45°	729.2	704.2	683.3	656.3	634.5	599.0	569.8	529.3	492.2	453.5	412.9
47.5°	857.6	826.5	796.1	769.5	734.6	699.8	662.7	619.6	572.0	529.6	481.4
50°	1005.0	960.9	918.8	884.5	836.7	796.4	756.2	707.7	655.1	606.3	551.4
52.5°	1168.8	1117.8	1062.0	1009.4	953.9	902.3	853.8	798.0	739.4	679.8	618.6
55°	1366.6	1328.2	1262.6	1195.7	1121.6	1052.5	990.1	921.0	849.7	771.4	707.0
57.5°	1676.2	1657.5	1602.7	1535.8	1439.1	1355.1	1249.3	1164.7	1061.4	953.6	870.6
60°	2095.8	2072.7	2041.9	1987.7	1911.0	1796.9	1680.3	1548.8	1391.6	1242.3	1100.7
62.5°	2319.5	2311.3	2286.3	2248.9	2177.2	2087.2	1969.7	1825.1	1647.7	1466.4	1285.7
63°	2326.2	2315.7	2294.2	2256.2	2193.1	2105.9	1990.6	1850.2	1676.5	1491.7	1307.3
65°	2236.2	2232.1	2210.2	2168.7	2125.6	2059.0	1969.7	1848.9	1703.1	1528.5	1345.0
67.5°	1983.3	1970.9	1937.3	1924.7	1894.5	1848.3	1780.1	1697.1	1592.8	1455.6	1297.2
70°	1677.5	1659.1	1616.9	1594.4	1557.7	1528.5	1487.0	1427.7	1363.4	1267.7	1149.5
72.5°	1353.2	1315.2	1276.6	1217.9	1166.6	1114.6	1068.7	1026.8	956.1	917.5	827.8
75°	878.8	809.7	743.5	654.8	574.9	504.2	435.4	400.6	328.0	298.5	256.4
77.5°	417.1	378.4	326.4	286.2	234.8	191.7	156.6	117.6	92.2	72.3	55.1
80°	336.6	303.9	272.6	236.1	197.4	157.5	120.7	90.3	64.0	44.4	31.4
82.5°	300.1	264.6	226.0	200.9	174.6	142.9	117.3	95.7	70.7	51.7	35.2
85°	116.6	98.2	75.7	61.8	48.2	39.6	35.8	24.7	19.3	15.2	11.7
87.5°	10.1	8.2	6.7	4.4	4.8	2.5	2.9	1.9	1.6	1.6	1.3
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: P162267

CATALOG NUMBER: ECM-E01-LED-E1-SL2-HSS

CANDELA DISTRIBUTION (continued):

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9	66.9
2.5°	70.0	69.7	69.4	68.8	68.8	68.1	67.8	67.5	65.9	62.4	59.6
5°	73.5	72.9	72.3	71.3	70.7	69.7	69.1	68.1	64.7	58.0	52.3
7.5°	78.6	77.3	76.4	74.5	73.5	72.3	71.3	69.7	64.0	53.9	46.0
10°	84.6	82.4	80.8	78.6	76.7	75.1	73.5	71.3	63.4	49.4	40.2
12.5°	91.9	89.4	86.2	83.7	81.1	78.9	76.7	73.8	62.4	45.6	35.8
15°	99.2	95.4	93.2	89.7	86.2	83.0	79.9	77.3	62.8	41.5	32.0
17.5°	107.4	103.6	98.9	95.1	91.3	87.2	83.3	78.3	61.2	38.3	29.2
20°	115.4	110.0	105.5	100.8	95.4	90.3	85.6	81.1	59.9	35.2	26.6
22.5°	123.9	117.6	111.9	105.9	99.2	93.5	87.8	82.1	57.7	32.3	24.4
25°	134.4	127.1	118.8	111.6	104.6	97.6	90.3	83.3	55.5	29.8	22.8
27.5°	147.1	137.5	129.3	120.1	110.3	101.4	93.5	85.9	53.2	27.9	21.2
30°	163.2	152.1	140.4	128.7	118.2	108.1	97.0	87.5	51.0	26.0	19.6
32.5°	184.8	170.8	156.6	142.9	129.0	116.0	104.3	91.9	49.8	24.4	18.1
35°	213.3	195.2	177.8	160.7	143.9	128.0	112.8	98.9	49.8	22.5	16.2
37.5°	240.2	219.3	197.1	175.9	155.9	137.5	119.5	102.7	47.2	20.9	14.6
40°	269.4	244.3	218.4	193.3	169.2	146.4	125.8	106.5	45.0	19.0	13.0
42.5°	314.1	282.4	248.5	219.3	190.5	162.3	136.6	113.8	42.2	17.1	11.4
45°	372.7	332.4	292.5	257.0	220.3	185.7	155.3	127.1	41.5	15.5	9.8
47.5°	435.4	387.9	341.0	295.7	252.6	212.3	175.9	142.0	41.5	13.9	8.6
50°	497.9	438.3	388.2	335.6	287.1	239.6	196.2	157.5	41.8	12.7	7.0
52.5°	554.3	490.6	434.5	373.6	320.1	264.9	217.7	172.7	41.2	11.1	5.7
55°	632.6	557.8	492.8	425.6	362.9	300.8	247.2	195.5	41.5	9.8	4.8
57.5°	776.8	689.0	610.7	522.6	450.3	370.2	305.2	242.4	45.3	8.2	3.5
60°	983.7	869.6	759.7	652.2	560.3	464.9	380.6	306.8	53.2	6.7	2.5
62.5°	1122.8	973.6	842.4	723.8	617.0	517.2	425.3	341.3	58.6	5.4	1.6
63°	1137.1	982.8	850.9	728.6	619.6	519.7	427.2	343.9	58.9	5.1	1.6
65°	1164.0	998.6	855.7	729.5	617.0	516.3	425.9	343.5	59.6	4.1	1.3
67.5°	1133.3	974.2	828.1	702.3	594.9	495.7	410.1	330.9	59.3	2.9	1.0
70°	1013.5	881.7	753.3	636.1	538.4	448.8	373.3	301.7	54.5	1.9	0.6
72.5°	744.1	654.4	554.9	470.3	405.7	336.9	287.4	226.6	42.2	1.3	0.3
75°	220.6	200.9	168.9	149.0	131.5	108.7	96.7	75.4	21.6	0.6	0.0
77.5°	44.1	39.9	35.8	32.6	30.7	26.3	25.0	20.6	8.9	0.3	0.0
80°	23.1	19.0	16.2	14.3	12.4	10.1	8.6	7.0	1.6	0.0	0.0
82.5°	22.2	14.9	10.8	8.9	7.6	6.0	4.8	3.5	1.0	0.0	0.0
85°	8.2	6.3	4.8	3.8	3.2	2.9	2.2	1.9	0.0	0.0	0.0
87.5°	1.3	1.0	1.0	0.6	0.6	0.3	0.3	0.3	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: P162267

CATALOG NUMBER: ECM-E01-LED-E1-SL2-HSS

CANDELA DISTRIBUTION (continued):

	125°	135°	145°	155°	165°	175°	180°
0°	66.9	66.9	66.9	66.9	66.9	66.9	66.9
2.5°	56.7	54.2	52.9	51.3	51.3	51.0	51.7
5°	47.2	43.7	41.2	39.3	39.6	38.7	39.0
7.5°	39.9	36.4	34.2	33.0	32.6	32.3	32.3
10°	34.5	31.4	29.5	28.5	28.2	28.2	28.2
12.5°	30.7	27.6	26.0	25.4	25.4	25.0	25.0
15°	27.6	25.0	23.5	22.8	22.8	22.5	22.8
17.5°	25.0	22.5	21.2	20.6	20.6	20.3	20.3
20°	22.8	20.6	19.3	18.4	18.4	18.1	18.4
22.5°	20.9	18.7	17.1	16.5	16.2	15.8	16.2
25°	19.0	16.8	15.2	14.3	13.9	13.9	13.6
27.5°	17.4	15.2	13.3	12.4	12.0	12.0	11.7
30°	15.8	13.3	11.4	10.5	10.1	10.1	10.1
32.5°	14.3	11.4	9.8	8.9	8.6	8.6	8.6
35°	12.7	9.8	8.2	7.3	7.0	7.0	7.0
37.5°	10.8	8.2	6.3	5.7	5.4	5.1	5.1
40°	9.2	6.3	4.8	4.1	3.5	3.5	3.5
42.5°	7.6	5.1	3.5	2.5	2.2	1.9	2.2
45°	6.3	3.8	2.2	1.3	1.0	1.0	1.0
47.5°	5.1	2.5	1.0	0.3	0.3	0.3	0.3
50°	3.8	1.6	0.3	0.0	0.0	0.3	0.3
52.5°	2.9	1.0	0.0	0.0	0.0	0.0	0.0
55°	1.6	0.3	0.0	0.0	0.0	0.0	0.0
57.5°	1.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.6	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.3	0.0	0.0	0.0	0.0	0.0	0.0
63°	0.3	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.3	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)