

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: P141710

Luminaire Tested: **ECM-E02-LED-E1-T2**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141710
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33682)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-E02-LED-E1-T2
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5896.2 lumens
Efficiency: N/A
Efficacy: 113.2 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

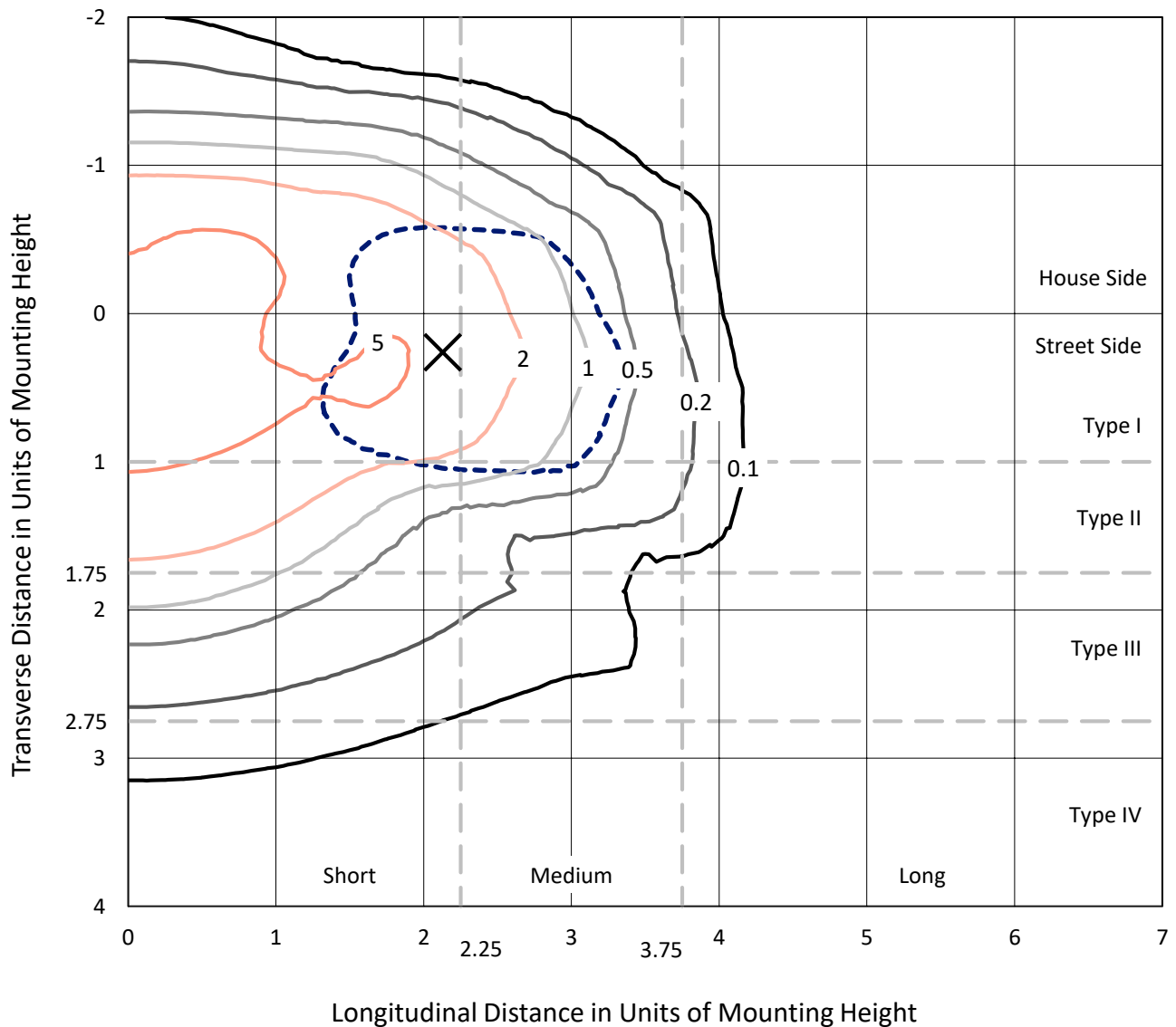
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P141710
 CATALOG NUMBER: ECM-E02-LED-E1-T2

Iso-Footcandle Lines of Horizontal Illumination

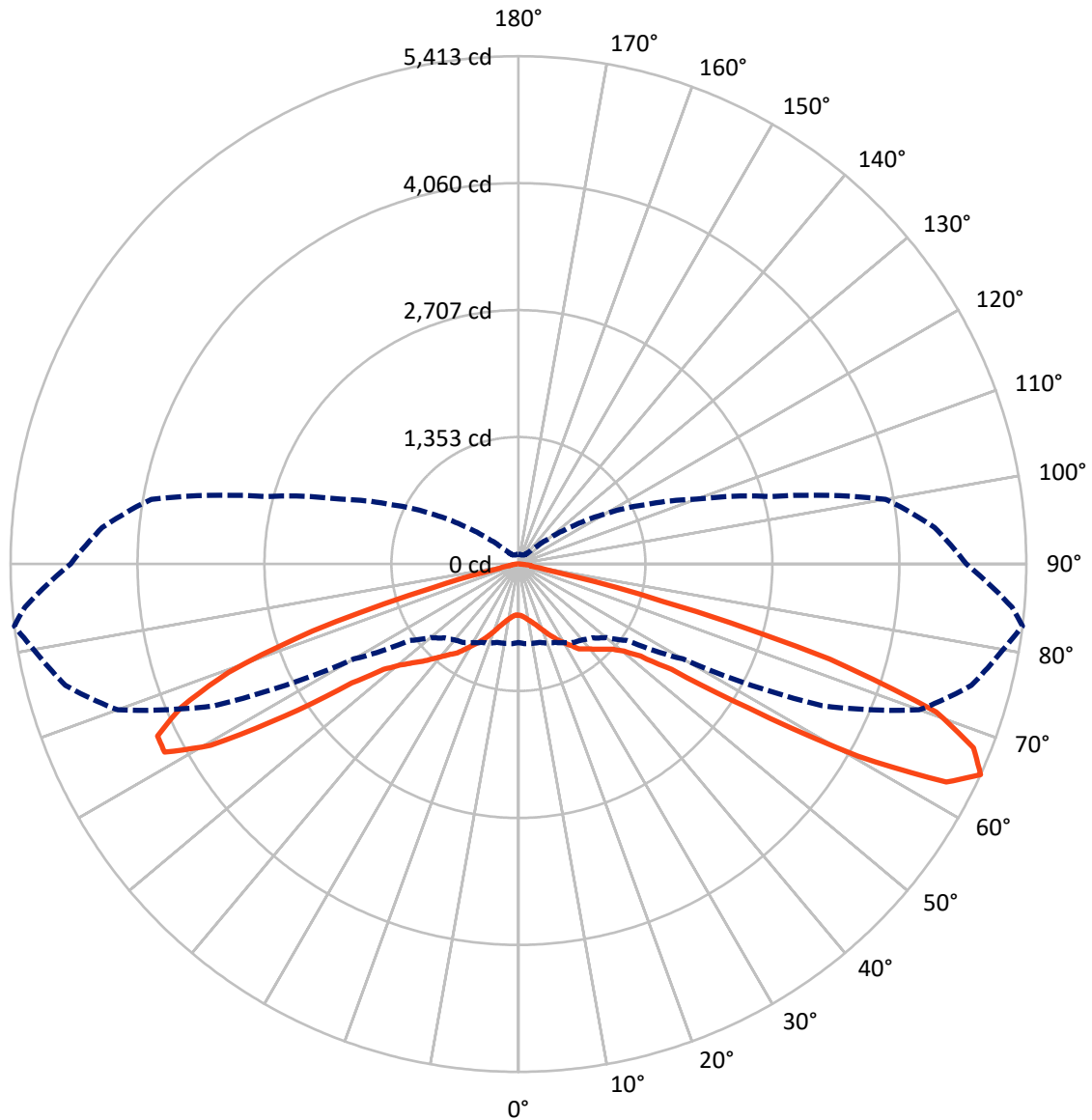
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.9 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P141710
CATALOG NUMBER: ECM-E02-LED-E1-T2

Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P141710

CATALOG NUMBER: ECM-E02-LED-E1-T2

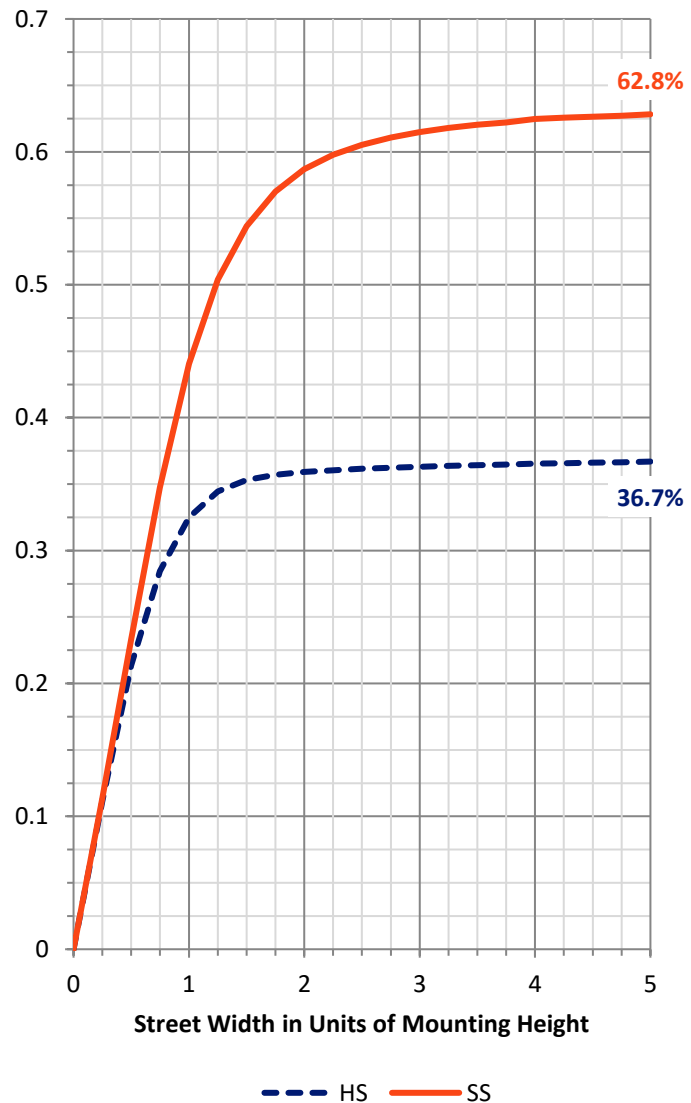
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2187.1	0.0	2187.1
	% Fixture	37.1	0.0	37.1
Street Side	Lumens	3709.1	0.0	3709.1
	% Fixture	62.9	0.0	62.9
Total	Lumens	5896.2	0.0	5896.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.9	0.9
10°-20°	192.4	3.3
20°-30°	380.2	6.4
30°-40°	654.3	11.1
40°-50°	987.2	16.7
50°-60°	1373.7	23.3
60°-70°	1585.6	26.9
70°-80°	576.2	9.8
80°-90°	91.5	1.6
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°	5896.2	100.0
0°-180°	5896.2	100.0



REPORT NUMBER: P141710

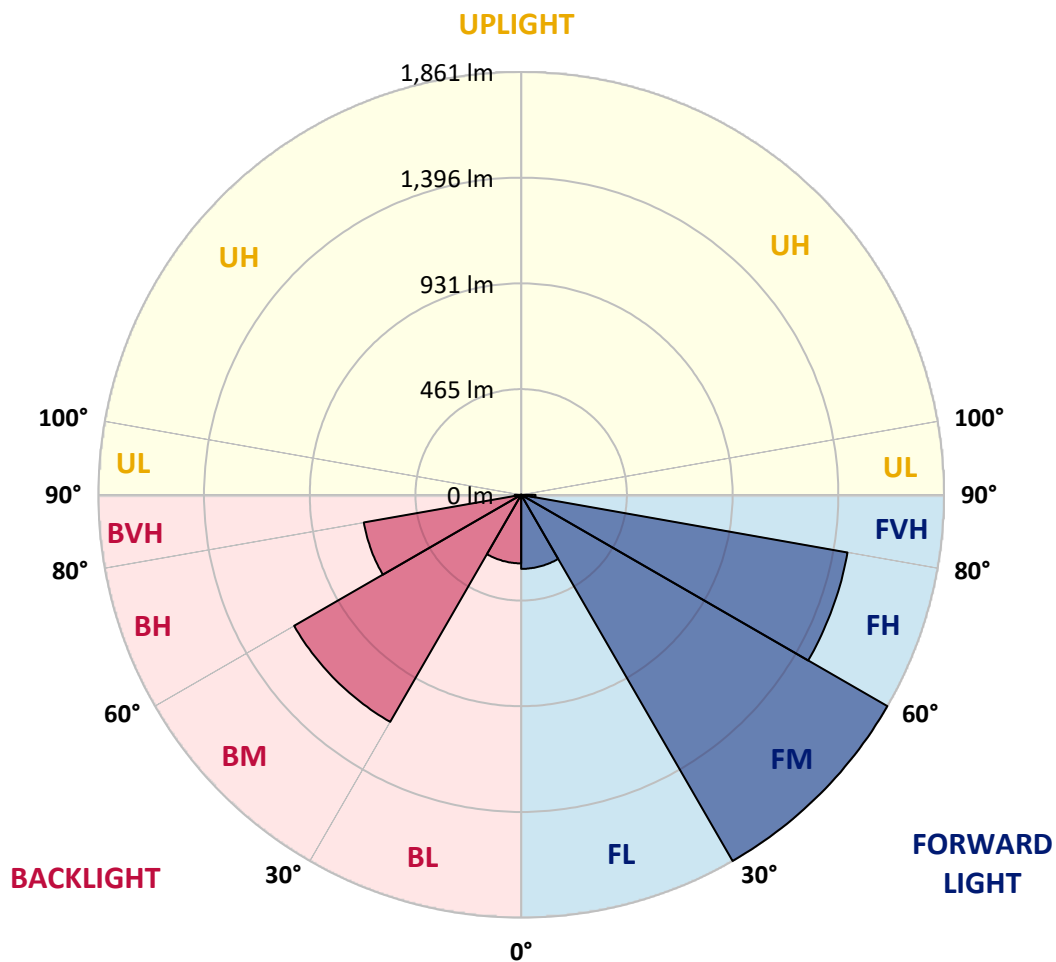
CATALOG NUMBER: ECM-E02-LED-E1-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	326.0	5.5			
FM	(30°-60°)	1861.3	31.6			
FH	(60°-80°)	1458.7	24.7			G1/1800
FVH	(80°-90°)	63.2	1.1			G1/100
BL	(0°-30°)	301.6	5.1	B1/500		
BM	(30°-60°)	1154.0	19.6	B2/2500		
BH	(60°-80°)	703.2	11.9	B2/1000		G2/1000
BVH	(80°-90°)	28.3	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





REPORT NUMBER: P141710

CATALOG NUMBER: ECM-E02-LED-E1-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0
2.5°	572.7	574.0	572.7	572.7	572.0	571.3	571.3	570.7	569.3	568.0	567.3
5°	604.0	604.7	602.7	602.7	603.3	602.7	600.7	601.3	596.0	594.0	592.7
7.5°	638.7	640.7	638.0	636.7	636.0	634.7	632.7	629.3	625.3	622.0	620.0
10°	678.0	680.0	678.7	676.0	672.0	670.0	668.0	662.7	658.0	652.7	648.7
12.5°	724.7	725.3	724.0	718.7	716.0	710.0	703.3	697.3	690.7	682.7	676.0
15°	770.7	771.3	769.3	764.0	760.7	753.3	744.0	736.0	724.7	715.3	706.7
17.5°	806.0	807.3	803.3	799.3	794.7	785.3	776.7	767.3	755.3	745.3	736.7
20°	818.0	820.0	817.3	815.3	812.7	808.0	799.3	791.3	780.7	773.3	766.7
22.5°	812.7	814.7	813.3	813.3	813.3	812.7	808.7	806.7	800.0	796.7	795.3
25°	804.7	806.7	805.3	806.7	809.3	812.7	812.7	816.7	816.0	821.3	824.7
27.5°	825.3	826.7	823.3	823.3	826.0	831.3	830.0	838.0	839.3	850.0	860.0
30°	897.3	897.3	892.0	886.7	888.7	887.3	886.0	891.3	891.3	901.3	906.0
32.5°	1004.7	997.3	996.7	996.0	991.3	994.7	984.0	984.7	980.0	981.3	979.3
35°	1122.7	1122.0	1119.3	1118.0	1116.0	1126.0	1118.0	1124.7	1108.0	1102.0	1090.7
37.5°	1226.0	1228.7	1230.7	1240.7	1245.3	1265.3	1270.0	1273.3	1256.0	1256.7	1231.3
40°	1330.0	1333.3	1340.7	1358.7	1372.0	1390.7	1399.3	1413.3	1414.7	1417.3	1398.7
42.5°	1443.3	1438.0	1448.0	1470.7	1487.3	1506.0	1517.3	1543.3	1558.0	1565.3	1568.0
45°	1534.7	1528.7	1533.3	1546.7	1562.0	1586.0	1610.7	1649.3	1680.7	1714.7	1733.3
47.5°	1582.0	1583.3	1586.7	1594.7	1605.3	1628.7	1663.3	1712.7	1763.3	1818.0	1866.7
50°	1597.3	1598.0	1602.7	1610.7	1620.7	1645.3	1681.3	1737.3	1798.7	1875.3	1950.0
52.5°	1602.0	1599.3	1604.0	1608.0	1614.7	1635.3	1669.3	1728.0	1797.3	1890.0	2000.7
55°	1584.7	1581.3	1589.3	1594.7	1600.0	1616.7	1642.7	1696.7	1768.7	1874.0	2018.7
57.5°	1518.0	1518.7	1530.0	1544.0	1558.0	1580.7	1614.7	1666.0	1737.3	1841.3	2003.3
60°	1405.3	1403.3	1417.3	1434.7	1458.7	1494.7	1536.7	1588.7	1648.0	1734.7	1894.0
62.5°	1200.7	1208.7	1213.3	1239.3	1240.7	1292.0	1319.3	1371.3	1422.0	1488.7	1632.0
65°	836.0	853.3	858.0	864.7	896.0	922.7	966.7	1021.3	1054.7	1113.3	1220.0
67.5°	520.7	533.3	534.0	551.3	578.7	609.3	643.3	698.7	749.3	758.7	812.0
70°	432.0	432.7	442.0	454.7	476.0	507.3	540.7	579.3	625.3	654.7	649.3
72.5°	358.0	362.0	368.7	381.3	404.7	432.7	475.3	524.7	582.0	640.7	692.7
75°	240.0	246.7	248.7	254.7	266.0	291.3	323.3	370.0	444.0	531.3	642.0
77.5°	127.3	128.7	133.3	138.0	144.0	159.3	180.0	204.0	252.7	328.0	458.0
80°	64.7	67.3	70.7	74.0	73.3	77.3	83.3	94.0	110.7	144.0	207.3
82.5°	23.3	30.0	39.3	44.0	44.0	45.3	47.3	49.3	48.0	53.3	66.7
85°	10.7	12.0	15.3	24.0	24.7	24.7	24.7	26.0	24.7	22.0	26.0
87.5°	0.0	2.0	2.0	6.0	6.7	6.0	6.7	8.7	6.7	5.3	4.7
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: P141710

CATALOG NUMBER: ECM-E02-LED-E1-T2

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	83°	85°	90°	95°	100°
0°	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0
2.5°	564.0	562.7	559.3	558.0	554.0	551.3	550.0	548.7	546.7	544.0	542.0
5°	588.7	584.7	580.0	577.3	572.0	566.7	564.7	562.0	557.3	553.3	548.7
7.5°	614.7	610.0	604.7	598.7	593.3	587.3	584.7	582.0	575.3	570.0	563.3
10°	642.7	636.0	630.0	624.7	620.0	613.3	608.7	606.7	600.7	592.7	586.0
12.5°	669.3	662.0	656.0	649.3	644.7	639.3	634.7	632.7	628.0	620.7	615.3
15°	697.3	690.0	683.3	678.7	673.3	670.0	667.3	664.0	662.0	656.0	653.3
17.5°	727.3	720.7	714.7	710.7	708.7	708.0	707.3	706.0	704.0	700.0	698.0
20°	761.3	755.3	753.3	752.7	753.3	754.0	755.3	755.3	756.0	753.3	752.7
22.5°	794.0	794.0	797.3	801.3	805.3	808.0	810.0	807.3	808.0	812.0	815.3
25°	830.0	836.0	844.7	851.3	857.3	862.0	864.7	866.0	867.3	873.3	879.3
27.5°	868.7	878.0	890.7	899.3	910.7	918.0	923.3	922.7	924.7	932.7	943.3
30°	916.7	926.0	939.3	951.3	966.7	977.3	979.3	978.0	980.7	988.0	1009.3
32.5°	984.0	986.0	994.7	1006.7	1023.3	1034.0	1036.0	1039.3	1045.3	1058.7	1084.7
35°	1078.7	1070.0	1069.3	1074.7	1090.7	1111.3	1113.3	1115.3	1118.0	1135.3	1170.0
37.5°	1206.7	1171.3	1150.0	1133.3	1135.3	1142.7	1146.7	1148.0	1154.7	1181.3	1240.0
40°	1367.3	1301.3	1254.0	1206.7	1189.3	1190.7	1192.0	1190.7	1204.0	1245.3	1322.0
42.5°	1543.3	1485.3	1402.7	1304.7	1255.3	1239.3	1241.3	1242.7	1263.3	1323.3	1408.7
45°	1730.0	1692.7	1596.7	1443.3	1337.3	1296.7	1295.3	1298.0	1332.0	1416.7	1506.7
47.5°	1894.0	1903.3	1832.7	1652.7	1470.7	1367.3	1358.7	1363.3	1418.7	1509.3	1600.7
50°	2024.0	2085.3	2080.0	1937.3	1686.7	1489.3	1458.7	1465.3	1530.7	1624.7	1706.7
52.5°	2122.0	2246.7	2326.7	2270.0	2052.0	1710.7	1631.3	1620.0	1702.0	1801.3	1852.0
55°	2187.3	2389.3	2599.3	2697.3	2608.7	2188.7	1981.3	1956.7	2045.3	2172.0	2194.0
57.5°	2230.7	2562.7	3014.7	3393.3	3514.0	3154.0	2894.0	2790.7	2855.3	2989.3	2960.7
60°	2158.7	2631.3	3516.0	4194.7	4538.0	4448.7	4159.3	4003.3	3882.7	3872.7	3713.3
62.5°	1882.7	2468.0	3719.3	4576.0	5058.7	5170.0	5118.7	4934.0	4600.0	4414.7	4054.7
65°	1420.0	2022.0	3574.7	4546.7	4999.3	5246.0	5413.3	5280.7	4774.0	4453.3	3974.7
67.5°	907.3	1305.3	2973.3	4194.0	4619.3	4896.7	5231.3	5170.7	4523.3	4114.0	3593.3
70°	662.7	723.3	2017.3	3550.0	4018.0	4262.0	4722.0	4695.3	3966.7	3506.7	2990.7
72.5°	763.3	539.3	1106.0	2652.0	3014.0	3206.0	3469.3	3404.7	2771.3	2452.0	2086.7
75°	860.7	603.3	623.3	1573.3	1684.0	1549.3	1585.3	1376.7	1074.0	952.0	938.0
77.5°	724.7	756.7	565.3	676.0	622.7	448.7	336.0	263.3	206.0	221.3	246.0
80°	421.3	850.7	748.0	352.0	394.7	314.0	140.0	116.0	96.0	97.3	98.7
82.5°	130.0	531.3	1052.7	430.0	390.7	442.7	128.7	78.7	63.3	71.3	80.7
85°	43.3	222.7	844.0	451.3	252.7	236.0	56.7	38.7	32.0	44.7	63.3
87.5°	10.7	54.0	156.7	59.3	37.3	22.7	19.3	14.0	15.3	28.0	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



REPORT NUMBER: P141710

CATALOG NUMBER: ECM-E02-LED-E1-T2

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0	546.0
2.5°	540.7	538.7	536.7	535.3	533.3	533.3	531.3	531.3	528.7	527.3	527.3
5°	544.7	540.7	537.3	534.0	530.7	529.3	526.7	525.3	522.7	520.7	519.3
7.5°	558.0	552.7	548.7	544.7	540.7	538.7	536.0	533.3	532.7	531.3	530.0
10°	580.7	573.3	570.0	567.3	562.0	560.7	558.0	556.0	554.0	552.0	552.7
12.5°	610.0	604.7	603.3	598.0	596.7	594.7	590.7	589.3	584.0	580.0	578.0
15°	647.3	645.3	645.3	642.7	638.7	635.3	629.3	626.0	616.7	610.7	604.0
17.5°	696.7	694.7	695.3	692.7	688.0	682.0	675.3	665.3	651.3	640.7	627.3
20°	754.0	753.3	754.7	752.7	746.7	738.7	722.7	708.0	688.7	669.3	654.7
22.5°	818.0	821.3	822.7	817.3	810.7	794.0	776.7	755.3	729.3	704.0	683.3
25°	886.0	894.0	898.7	891.3	883.3	862.0	836.0	807.3	770.7	740.0	712.7
27.5°	952.7	969.3	976.0	972.0	959.3	929.3	894.7	856.7	812.0	771.3	736.0
30°	1032.0	1054.0	1066.0	1060.0	1035.3	996.0	954.0	902.7	846.0	797.3	754.7
32.5°	1115.3	1142.7	1151.3	1138.7	1102.7	1053.3	998.7	936.0	872.0	816.0	768.0
35°	1208.0	1233.3	1235.3	1210.7	1163.3	1100.7	1032.7	957.3	884.0	821.3	768.7
37.5°	1288.7	1314.0	1312.0	1275.3	1218.0	1140.0	1053.3	962.0	876.7	805.3	748.0
40°	1373.3	1401.3	1386.0	1338.7	1264.7	1165.3	1056.0	946.0	848.7	770.7	708.0
42.5°	1462.7	1474.7	1447.3	1388.0	1292.7	1164.7	1033.3	908.0	804.7	718.0	652.0
45°	1544.7	1535.3	1496.0	1416.7	1290.7	1136.0	988.7	860.7	746.0	659.3	594.7
47.5°	1618.0	1588.7	1528.0	1416.7	1259.3	1085.3	931.3	799.3	685.3	598.0	534.0
50°	1697.3	1636.0	1541.3	1392.0	1202.7	1024.0	870.7	738.0	620.7	531.3	461.3
52.5°	1802.7	1692.7	1541.3	1347.3	1144.0	962.0	806.7	666.7	545.3	452.0	382.7
55°	2049.3	1811.3	1568.0	1322.7	1092.0	896.7	730.7	574.7	456.7	367.3	310.0
57.5°	2534.0	2071.3	1702.0	1368.0	1072.7	826.0	632.7	472.7	360.7	286.0	238.0
60°	2937.3	2281.3	1810.7	1402.7	1041.3	734.7	512.7	362.0	268.0	211.3	180.0
62.5°	3041.3	2284.0	1766.0	1312.7	914.7	598.0	378.0	249.3	184.0	153.3	136.7
65°	2781.3	2020.0	1502.0	1070.7	696.7	415.3	236.7	151.3	122.7	112.0	105.3
67.5°	2338.0	1609.3	1113.3	746.7	439.3	228.7	132.7	104.0	93.3	90.0	86.7
70°	1793.3	1130.7	724.7	437.3	230.0	118.7	94.7	85.3	80.7	78.7	76.0
72.5°	1105.3	668.0	394.0	210.0	114.7	90.7	84.7	81.3	75.3	72.7	70.0
75°	469.3	286.7	163.3	106.7	92.0	86.7	82.0	78.0	73.3	69.3	66.7
77.5°	158.0	109.3	96.7	93.3	92.0	86.7	80.7	75.3	70.7	66.0	63.3
80°	96.0	87.3	89.3	88.7	92.0	86.0	78.0	72.0	66.7	62.0	58.7
82.5°	83.3	82.7	84.7	86.7	91.3	82.7	73.3	64.7	58.0	53.3	50.0
85°	72.0	73.3	74.7	76.0	78.7	70.0	59.3	51.3	46.0	40.0	37.3
87.5°	48.0	52.0	54.7	55.3	53.3	33.3	19.3	22.7	23.3	20.0	18.0
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: P141710

CATALOG NUMBER: ECM-E02-LED-E1-T2

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	546.0	546.0	546.0	546.0	546.0
2.5°	525.3	524.7	526.7	524.7	524.7
5°	518.7	518.0	518.0	518.0	516.7
7.5°	529.3	528.7	528.0	528.0	527.3
10°	550.0	549.3	549.3	548.7	548.7
12.5°	574.7	572.0	571.3	570.0	570.7
15°	598.7	591.3	589.3	587.3	585.3
17.5°	617.3	608.7	604.0	600.0	600.0
20°	640.7	629.3	623.3	617.3	617.3
22.5°	667.3	652.0	644.0	637.3	634.7
25°	689.3	670.0	658.7	650.7	648.7
27.5°	706.0	681.3	666.7	657.3	654.7
30°	719.3	691.3	674.0	664.0	660.0
32.5°	728.0	697.3	678.7	668.7	664.7
35°	723.3	690.7	668.0	656.0	653.3
37.5°	700.0	665.3	638.7	626.0	621.3
40°	657.3	620.0	592.0	576.7	574.0
42.5°	601.3	564.0	537.3	521.3	514.0
45°	541.3	502.7	477.3	462.7	454.0
47.5°	476.7	438.7	412.7	398.0	392.0
50°	408.7	372.0	350.0	334.0	328.0
52.5°	338.0	305.3	283.3	270.0	263.3
55°	270.7	244.0	225.3	216.7	212.0
57.5°	211.3	194.0	183.3	178.0	174.7
60°	164.0	155.3	151.3	147.3	148.0
62.5°	128.0	126.0	124.7	122.7	123.3
65°	103.3	102.0	102.7	102.0	102.7
67.5°	84.7	85.3	86.7	86.7	87.3
70°	74.7	75.3	76.7	76.7	76.7
72.5°	69.3	70.7	72.0	71.3	71.3
75°	65.3	68.7	71.3	68.7	66.0
77.5°	61.3	69.3	76.7	70.7	63.3
80°	56.0	73.3	82.0	71.3	60.7
82.5°	53.3	70.7	72.0	62.0	53.3
85°	49.3	80.0	83.3	56.7	40.7
87.5°	25.3	48.0	55.3	38.0	20.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)