

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: P141886

Luminaire Tested: **ECM-F03-LED-E1-T3-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141886
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33683)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F03-LED-E1-T3-7050
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 3
Light Source: (21) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7461.7 lumens
Efficiency: N/A
Efficacy: 95.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

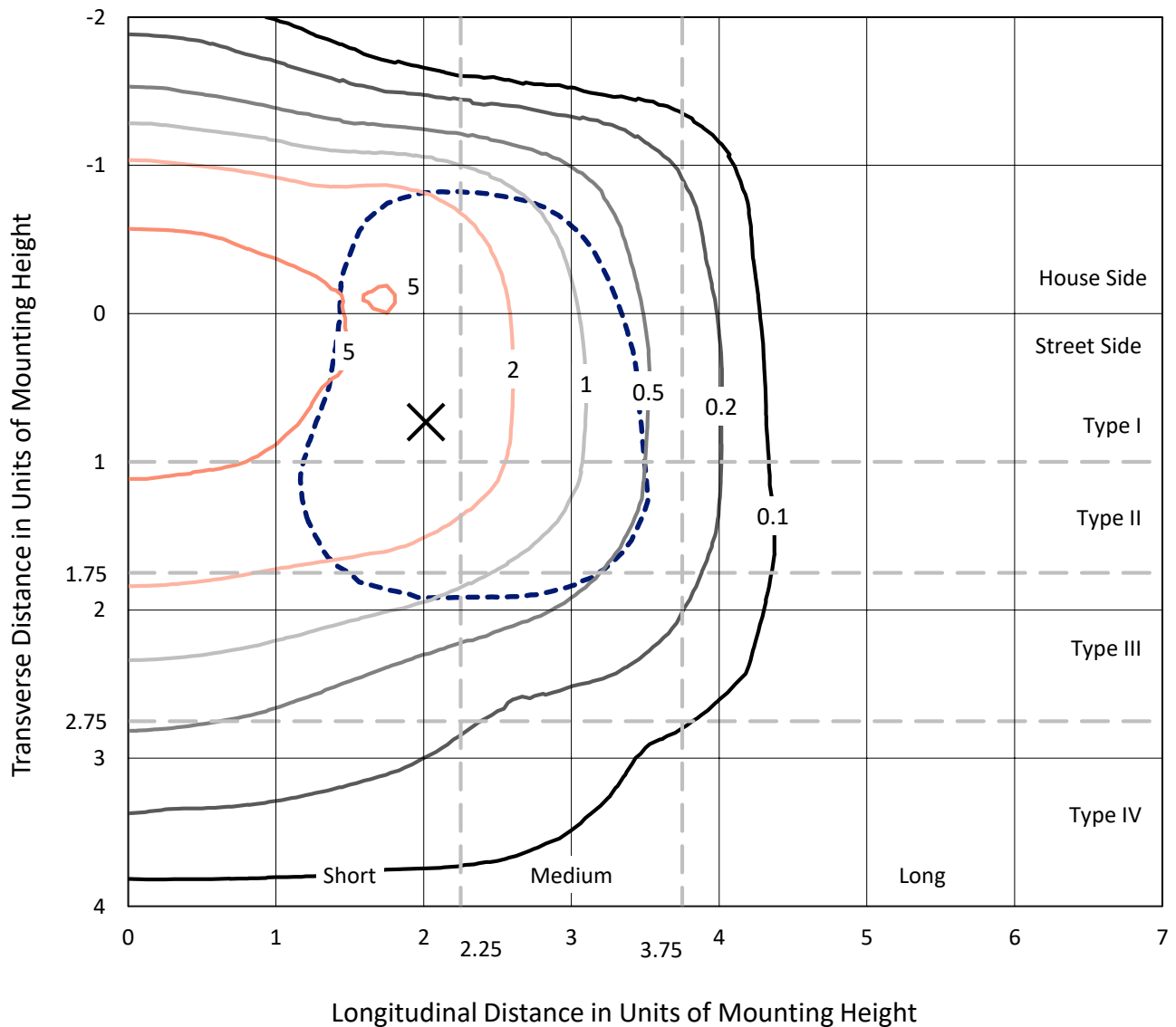
Input Watts (W): 78.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P141886
 CATALOG NUMBER: ECM-F03-LED-E1-T3-7050

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

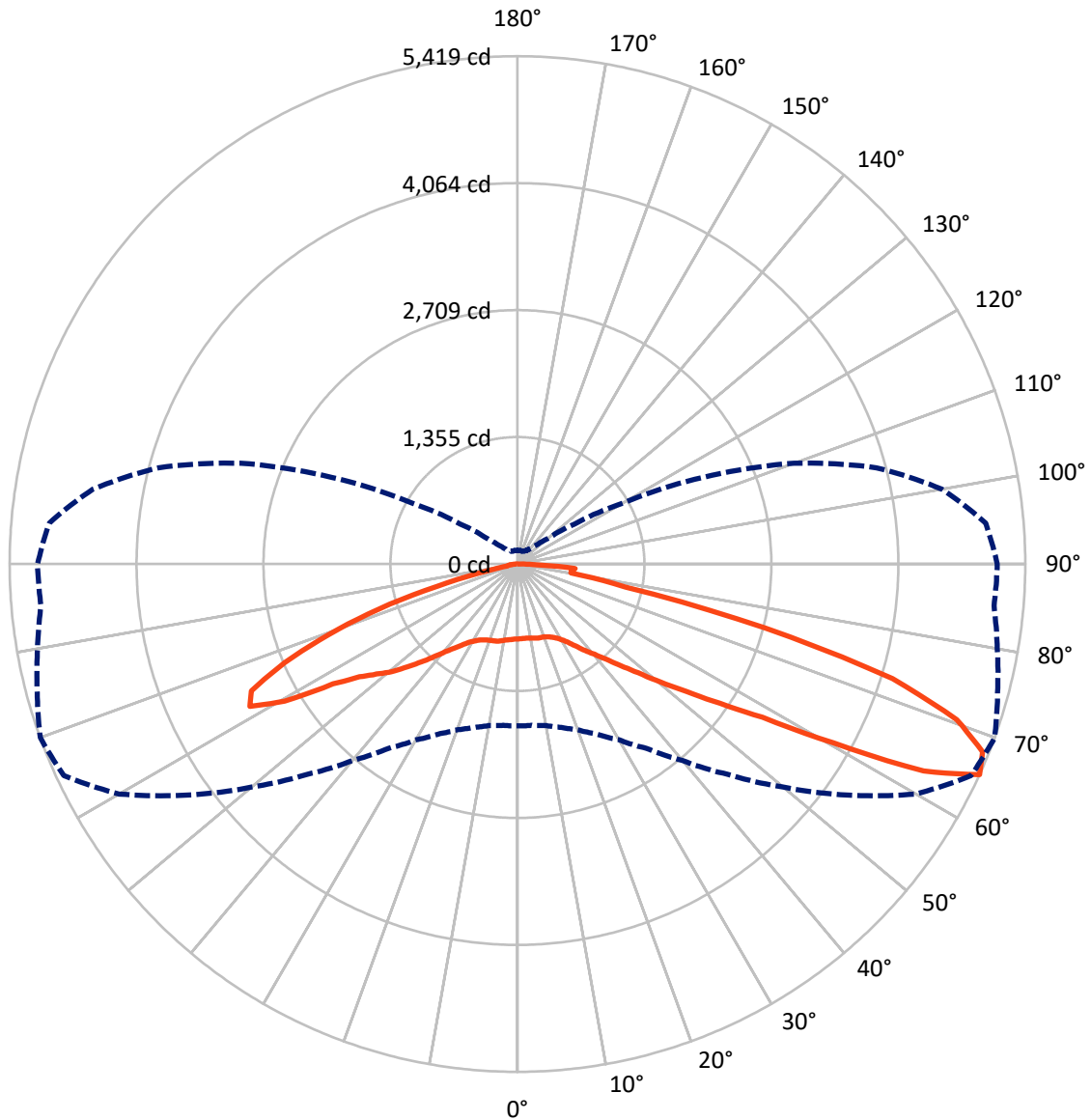


Based on 10 foot mounting height. Maximum calculated value = 8.1 fc
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P141886

CATALOG NUMBER: ECM-F03-LED-E1-T3-7050

Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

REPORT NUMBER: P141886

CATALOG NUMBER: ECM-F03-LED-E1-T3-7050

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2518.9	0.0	2518.9
	% Fixture	33.8	0.0	33.8
Street Side	Lumens	4942.8	0.0	4942.8
	% Fixture	66.2	0.0	66.2
Total	Lumens	7461.7	0.0	7461.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.0	1.0
10°-20°	228.0	3.1
20°-30°	391.9	5.3
30°-40°	628.3	8.4
40°-50°	1028.6	13.8
50°-60°	1610.0	21.6
60°-70°	2262.6	30.3
70°-80°	1070.8	14.4
80°-90°	164.5	2.2
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°	7461.7	100.0
0°-180°	7461.7	100.0

Coefficient of Utilization



REPORT NUMBER: P141886

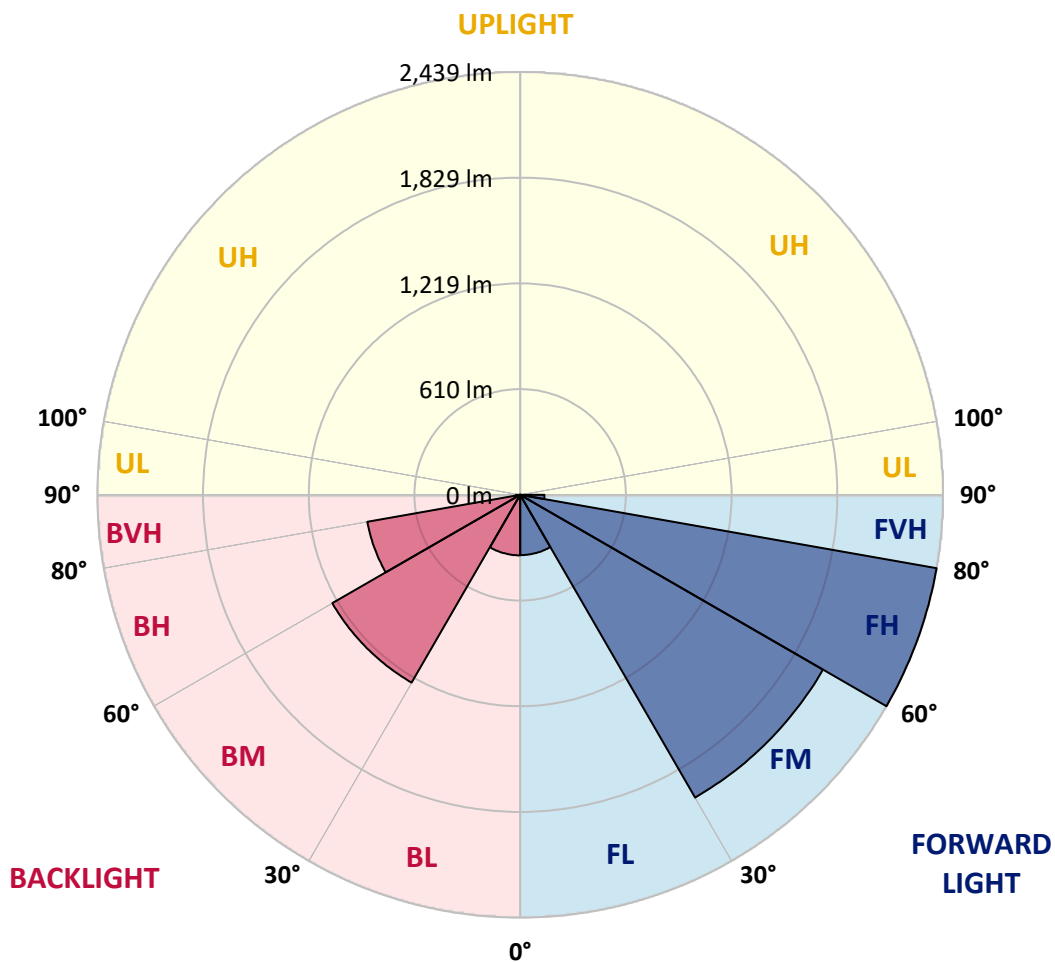
CATALOG NUMBER: ECM-F03-LED-E1-T3-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	347.6	4.7			
FM	(30°-60°)	2016.3	27.0			
FH	(60°-80°)	2438.7	32.7			G2/5000
FVH	(80°-90°)	140.2	1.9			G2/225
BL	(0°-30°)	349.3	4.7	B1/500		
BM	(30°-60°)	1250.5	16.8	B2/2500		
BH	(60°-80°)	894.7	12.0	B2/1000		G2/1000
BVH	(80°-90°)	24.3	0.3			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 III Short





REPORT NUMBER: P141886

CATALOG NUMBER: ECM-F03-LED-E1-T3-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	799.6	799.6	799.6	799.6	799.6	799.6	799.6	799.6	799.6	799.6	799.6
2.5°	795.4	796.3	796.3	794.6	794.6	795.4	795.4	796.3	796.3	796.3	797.1
5°	795.4	796.3	796.3	795.4	794.6	796.3	795.4	796.3	796.3	796.3	796.3
7.5°	793.7	794.6	794.6	793.7	794.6	795.4	795.4	797.1	797.9	797.9	798.8
10°	785.2	786.1	786.9	786.9	788.6	791.2	792.0	795.4	796.3	798.8	800.5
12.5°	770.0	770.0	771.7	773.4	775.9	781.0	783.5	788.6	792.9	796.3	802.2
15°	756.4	756.4	758.1	759.0	764.1	767.5	772.5	778.5	786.1	792.9	802.2
17.5°	763.2	763.2	762.4	761.5	762.4	762.4	766.6	772.5	779.3	788.6	800.5
20°	789.5	788.6	785.2	783.5	782.7	779.3	776.8	775.9	779.3	786.1	797.9
22.5°	812.3	810.7	809.8	808.1	810.7	809.0	805.6	801.3	796.3	793.7	800.5
25°	825.9	826.7	826.7	826.7	831.8	833.5	835.2	830.1	824.2	815.7	816.6
27.5°	844.5	845.4	843.7	847.1	853.0	857.2	861.5	864.9	861.5	856.4	850.5
30°	884.3	884.3	881.8	884.3	889.4	893.7	899.6	905.5	905.5	900.4	894.5
32.5°	925.9	926.7	926.7	928.4	936.0	939.4	947.9	953.8	958.0	954.7	958.0
35°	975.8	975.0	977.5	978.4	990.2	994.5	1011.4	1015.6	1022.4	1024.1	1026.7
37.5°	1058.8	1060.5	1055.5	1052.1	1062.2	1062.2	1084.3	1096.1	1094.4	1106.3	1114.8
40°	1192.7	1185.1	1182.5	1180.8	1186.8	1185.9	1185.1	1201.2	1208.8	1210.5	1214.7
42.5°	1340.9	1343.5	1340.9	1346.9	1346.9	1342.6	1339.2	1336.7	1351.1	1360.4	1362.1
45°	1514.6	1518.0	1512.9	1508.6	1519.7	1525.6	1525.6	1532.4	1544.2	1548.5	1545.9
47.5°	1653.5	1662.8	1658.6	1664.5	1682.3	1702.6	1729.7	1747.5	1760.2	1772.1	1790.7
50°	1778.9	1783.1	1793.3	1812.7	1839.0	1871.2	1915.2	1959.3	1984.7	2014.3	2036.4
52.5°	1855.1	1867.8	1883.0	1915.2	1959.3	2004.2	2071.9	2143.9	2208.3	2241.4	2267.6
55°	1900.8	1910.2	1930.5	1974.5	2036.4	2103.3	2188.0	2287.1	2372.7	2445.5	2502.3
57.5°	1899.1	1906.8	1934.7	1983.0	2056.7	2140.6	2246.4	2370.1	2496.3	2617.5	2724.2
60°	1862.7	1869.5	1897.4	1949.1	2029.6	2129.5	2256.6	2408.2	2579.3	2761.5	2948.7
62.5°	1806.8	1811.9	1836.5	1888.1	1969.5	2076.2	2225.3	2424.3	2667.4	2954.6	3318.0
65°	1728.0	1728.0	1750.9	1804.3	1882.2	2001.6	2166.0	2399.8	2736.1	3173.1	3701.7
67.5°	1612.0	1612.0	1630.6	1674.7	1735.7	1818.7	1983.0	2226.1	2581.0	3104.5	3722.9
70°	1392.6	1396.0	1396.0	1423.1	1450.2	1487.5	1565.4	1751.8	2084.7	2596.3	3204.5
72.5°	1020.7	958.9	1007.2	1051.2	1081.7	1102.0	1146.9	1205.4	1373.1	1756.8	2307.4
75°	642.9	659.0	695.4	745.4	820.8	898.7	984.3	1020.7	1005.5	1051.2	1421.4
77.5°	389.7	376.1	411.7	486.2	570.9	676.8	836.9	975.8	1055.5	1050.4	1006.3
80°	168.6	164.3	188.1	223.6	265.1	360.9	507.4	698.0	909.8	1032.6	1013.9
82.5°	60.1	61.0	77.1	91.5	110.1	141.5	200.8	321.0	509.1	725.1	896.2
85°	17.8	19.5	27.1	38.1	43.2	49.1	67.8	100.8	172.0	274.5	487.9
87.5°	5.1	5.9	7.6	13.6	12.7	11.9	13.6	21.2	16.1	13.6	67.8
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: P141886

CATALOG NUMBER: ECM-F03-LED-E1-T3-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	799.6	799.6	799.6	799.6	799.6	799.6	799.6	799.6	799.6	799.6	799.6
2.5°	796.3	796.3	796.3	797.1	796.3	796.3	797.1	797.1	797.9	798.8	800.5
5°	795.4	795.4	796.3	796.3	796.3	797.1	797.9	798.8	800.5	803.0	805.6
7.5°	797.9	797.9	797.1	797.9	797.9	798.8	800.5	801.3	804.7	807.3	811.5
10°	800.5	800.5	801.3	802.2	802.2	803.9	806.4	807.3	810.7	815.7	820.0
12.5°	803.9	806.4	809.8	811.5	813.2	814.9	817.4	819.1	823.4	830.1	835.2
15°	806.4	812.3	815.7	820.0	822.5	823.4	825.9	829.3	833.5	840.3	846.2
17.5°	806.4	814.0	819.1	823.4	827.6	830.1	832.7	836.1	842.0	848.8	854.7
20°	805.6	816.6	823.4	830.1	837.8	840.3	844.5	847.9	854.7	863.2	867.4
22.5°	809.8	822.5	831.8	843.7	852.2	858.9	864.0	869.9	875.0	881.0	882.7
25°	822.5	835.2	850.5	864.9	876.7	886.9	893.7	898.7	904.7	907.2	903.8
27.5°	843.7	853.0	874.2	895.4	914.0	926.7	934.3	941.1	942.8	947.9	935.2
30°	881.8	886.0	908.1	938.6	959.7	980.9	991.1	997.9	998.7	995.3	973.3
32.5°	944.5	936.9	956.3	997.0	1029.2	1047.0	1063.1	1067.3	1064.8	1053.8	1018.2
35°	1020.7	1008.9	1018.2	1077.5	1113.1	1139.3	1154.6	1158.8	1152.9	1133.4	1084.3
37.5°	1114.8	1110.5	1114.8	1171.5	1233.3	1257.9	1264.7	1269.8	1255.4	1219.8	1155.4
40°	1218.9	1219.8	1214.7	1266.4	1344.3	1379.9	1396.0	1385.0	1367.2	1316.4	1245.2
42.5°	1362.9	1357.9	1340.1	1386.7	1486.6	1523.0	1537.4	1529.0	1511.2	1446.8	1363.8
45°	1553.5	1536.6	1519.7	1544.2	1640.8	1688.2	1709.4	1703.5	1672.1	1594.2	1516.3
47.5°	1786.5	1768.7	1737.4	1733.1	1830.5	1886.4	1894.1	1884.7	1861.0	1783.1	1687.4
50°	2031.3	2026.2	2011.8	1977.9	2065.2	2121.1	2116.0	2109.2	2083.0	1983.9	1885.6
52.5°	2284.6	2294.7	2285.4	2261.7	2354.9	2377.7	2379.4	2359.1	2328.6	2237.1	2103.3
55°	2550.5	2588.7	2603.1	2621.7	2695.4	2692.0	2672.5	2624.2	2631.9	2527.7	2342.2
57.5°	2832.6	2949.5	3041.8	3083.4	3153.7	3174.0	3124.9	3141.0	3134.2	3026.6	2734.4
60°	3204.5	3484.0	3724.6	3872.8	3967.7	3931.3	3999.9	4003.3	4119.3	3883.0	3427.3
62.5°	3797.4	4310.8	4737.7	4865.6	4890.2	4881.7	4800.4	4881.7	4859.7	4571.7	3981.3
65°	4296.4	4907.1	5340.8	5418.7	5304.4	5199.4	5104.5	5120.6	5015.5	4598.8	3965.2
67.5°	4364.1	4972.3	5374.7	5352.7	5102.8	4908.0	4750.4	4626.7	4412.4	4035.5	3483.2
70°	3827.9	4472.6	4991.0	4974.0	4626.7	4366.7	4110.9	3924.5	3706.0	3414.6	2891.9
72.5°	2977.5	3551.8	4054.1	4184.6	3842.3	3555.2	3320.5	3083.4	2858.0	2581.0	2251.5
75°	2027.1	2459.1	2692.9	2728.4	2415.0	2199.9	2109.2	1915.2	1676.4	1617.1	1373.1
77.5°	1177.4	1343.5	1272.3	1177.4	947.9	696.3	532.0	454.9	456.6	524.3	502.3
80°	957.2	911.5	719.2	576.9	392.2	199.9	133.8	115.2	116.0	134.7	130.4
82.5°	986.8	1013.1	832.7	582.8	401.5	211.8	101.6	75.4	88.1	95.7	94.0
85°	731.0	958.0	858.9	618.4	431.2	225.3	66.1	41.5	58.4	71.2	76.2
87.5°	205.0	321.9	249.9	165.2	120.3	40.7	26.3	22.0	27.1	37.3	37.3
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: P141886

CATALOG NUMBER: ECM-F03-LED-E1-T3-7050

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	799.6	799.6	799.6	799.6	799.6	799.6	799.6	799.6	799.6	799.6	799.6
2.5°	801.3	804.7	803.9	805.6	806.4	809.0	810.7	809.8	809.8	811.5	813.2
5°	808.1	812.3	812.3	814.9	817.4	820.8	823.4	821.7	822.5	824.2	825.9
7.5°	814.9	820.0	820.8	823.4	825.1	826.7	828.4	825.9	825.1	825.1	824.2
10°	823.4	828.4	827.6	827.6	826.7	825.1	821.7	815.7	811.5	809.0	807.3
12.5°	837.8	841.1	836.1	831.0	822.5	816.6	809.0	802.2	797.1	792.9	791.2
15°	850.5	848.8	842.8	833.5	821.7	812.3	804.7	795.4	789.5	784.4	781.9
17.5°	857.2	851.3	842.8	834.4	824.2	815.7	806.4	795.4	786.1	779.3	775.9
20°	864.0	854.7	843.7	835.2	827.6	820.8	814.0	800.5	788.6	778.5	773.4
22.5°	874.2	861.5	850.5	842.8	835.2	828.4	821.7	809.0	796.3	782.7	775.1
25°	888.6	871.6	864.0	856.4	847.9	841.1	831.8	820.0	806.4	790.3	779.3
27.5°	911.5	896.2	887.7	880.1	869.9	858.9	848.8	832.7	820.0	801.3	786.9
30°	944.5	928.4	920.8	913.1	901.3	886.9	872.5	852.2	834.4	813.2	794.6
32.5°	986.0	977.5	968.2	955.5	939.4	921.6	900.4	873.3	847.9	821.7	797.9
35°	1050.4	1036.0	1020.7	1008.0	984.3	959.7	927.5	887.7	853.9	821.7	792.9
37.5°	1124.1	1108.8	1088.5	1065.6	1030.0	991.1	946.2	896.2	851.3	812.3	780.2
40°	1213.0	1193.5	1166.4	1123.2	1070.7	1012.3	952.1	889.4	836.9	792.0	754.7
42.5°	1330.8	1290.9	1238.4	1174.9	1100.4	1020.7	944.5	871.6	812.3	763.2	725.9
45°	1463.7	1400.2	1315.5	1220.6	1117.3	1017.3	927.5	842.8	775.9	721.7	682.7
47.5°	1606.9	1507.8	1383.3	1249.4	1119.0	998.7	894.5	799.6	724.2	666.6	618.4
50°	1768.7	1605.2	1430.7	1263.8	1108.0	965.7	847.1	737.8	659.9	591.3	547.2
52.5°	1907.6	1690.8	1463.7	1257.9	1069.0	908.1	769.1	663.3	571.8	510.8	467.6
55°	2071.9	1773.8	1481.5	1228.3	1006.3	818.3	685.3	567.5	481.1	426.9	389.7
57.5°	2348.9	1914.4	1496.8	1168.1	903.0	705.6	569.2	459.1	391.3	343.9	317.7
60°	2883.4	2187.1	1559.5	1078.3	771.7	570.1	439.6	359.2	300.7	269.4	250.7
62.5°	3233.3	2372.7	1531.5	940.3	603.1	426.9	321.9	259.2	225.3	202.5	194.0
65°	3144.3	2185.5	1299.4	745.4	420.1	283.8	216.0	177.9	162.6	150.8	145.7
67.5°	2700.5	1762.8	941.9	482.0	266.0	172.8	141.5	126.2	119.4	114.4	113.5
70°	2151.6	1242.7	559.9	255.8	147.4	114.4	100.8	94.9	92.3	92.3	92.3
72.5°	1561.2	715.8	275.3	138.1	99.1	87.2	81.3	79.6	78.8	78.8	79.6
75°	892.0	310.0	141.5	94.9	81.3	75.4	72.0	72.0	72.0	72.0	72.8
77.5°	310.9	141.5	100.0	79.6	70.3	66.9	65.2	66.9	67.8	67.8	67.8
80°	113.5	100.0	85.6	69.5	62.7	59.3	59.3	61.8	63.5	61.8	61.0
82.5°	89.8	78.8	69.5	60.1	55.1	53.4	54.2	55.9	55.1	54.2	51.7
85°	68.6	51.7	48.3	44.9	44.0	44.0	47.4	48.3	44.9	43.2	40.7
87.5°	33.9	27.1	24.6	28.8	28.0	25.4	26.3	26.3	22.0	20.3	21.2
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: P141886

CATALOG NUMBER: ECM-F03-LED-E1-T3-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	799.6	799.6	799.6	799.6
2.5°	813.2	814.0	816.6	815.7
5°	825.1	825.9	827.6	827.6
7.5°	822.5	823.4	823.4	823.4
10°	803.0	803.0	804.7	804.7
12.5°	787.8	786.9	786.9	785.2
15°	778.5	776.8	777.6	775.1
17.5°	771.7	770.8	770.8	769.1
20°	769.1	767.5	766.6	764.9
22.5°	767.5	766.6	764.9	763.2
25°	771.7	767.5	766.6	764.9
27.5°	775.9	771.7	768.3	767.5
30°	780.2	772.5	768.3	766.6
32.5°	779.3	769.1	763.2	760.7
35°	770.0	757.3	749.7	747.1
37.5°	752.2	737.8	725.9	721.7
40°	726.8	708.2	697.1	691.2
42.5°	696.3	675.1	665.8	660.7
45°	646.3	629.4	618.4	614.1
47.5°	590.4	567.5	557.4	553.1
50°	518.4	499.8	491.3	485.4
52.5°	442.2	425.2	417.6	414.2
55°	368.5	360.0	348.1	345.6
57.5°	299.0	296.5	288.0	287.2
60°	243.1	238.9	232.9	232.9
62.5°	191.4	187.2	184.7	184.7
65°	147.4	146.5	144.8	144.0
67.5°	113.5	116.0	116.9	115.2
70°	94.9	95.7	95.7	95.7
72.5°	82.2	82.2	82.2	81.3
75°	74.5	74.5	72.8	72.0
77.5°	68.6	67.8	68.6	67.8
80°	60.1	59.3	57.6	55.9
82.5°	50.0	49.1	44.9	44.9
85°	39.0	36.4	33.0	29.6
87.5°	22.0	19.5	14.4	10.2
90°	0.0	0.0	0.0	0.0

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