

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: P162611

Luminaire Tested: **ECM-F03-LED-E1-SL4-HSS-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P162611
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: ECM-F03-LED-E1-SL4-HSS-7030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (21) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4376.1 lumens
Efficiency: N/A
Efficacy: 55.9 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

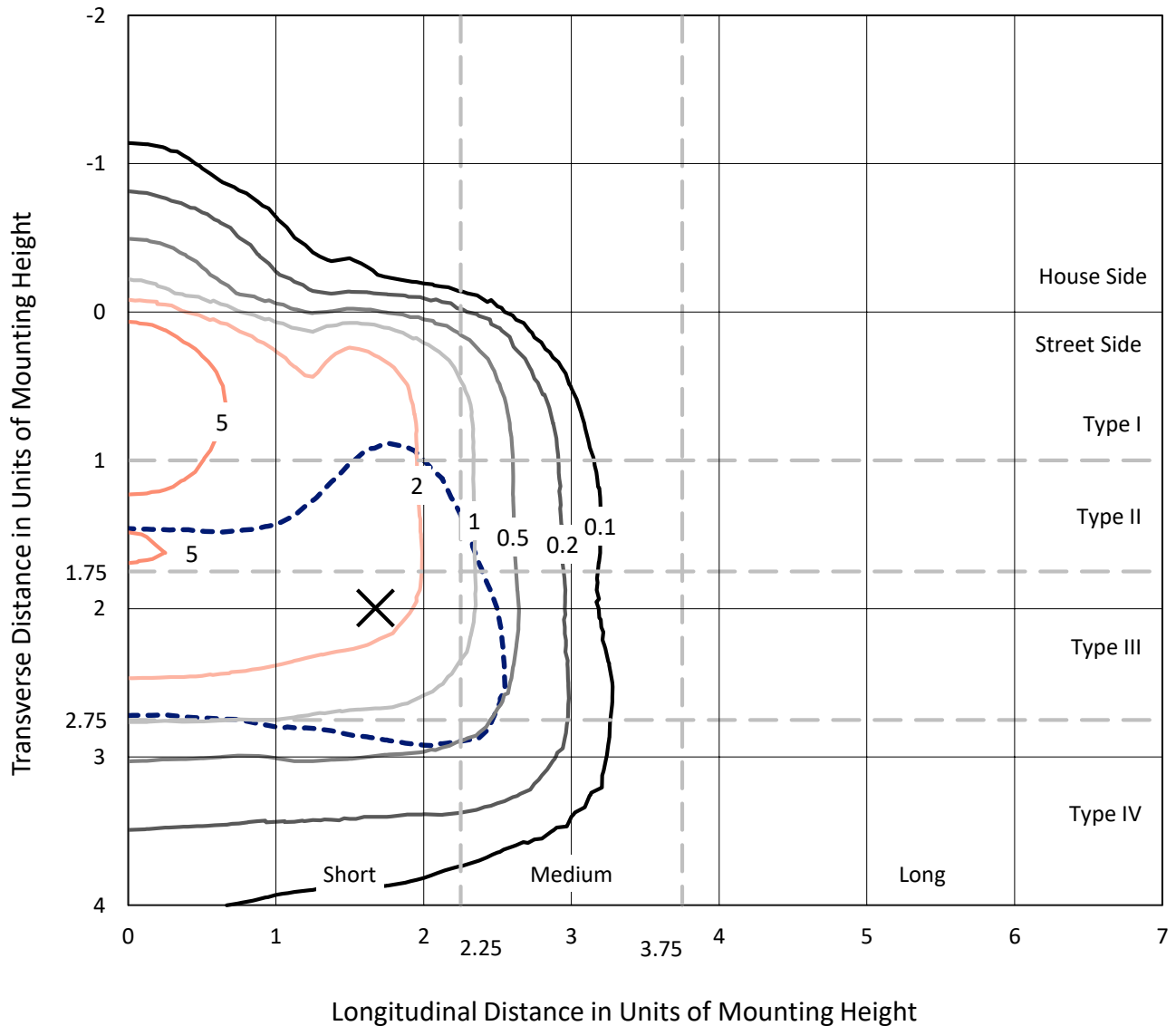
Input Watts (W): 78.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P162611
 CATALOG NUMBER: ECM-F03-LED-E1-SL4-HSS-7030

Iso-Footcandle Lines of Horizontal Illumination

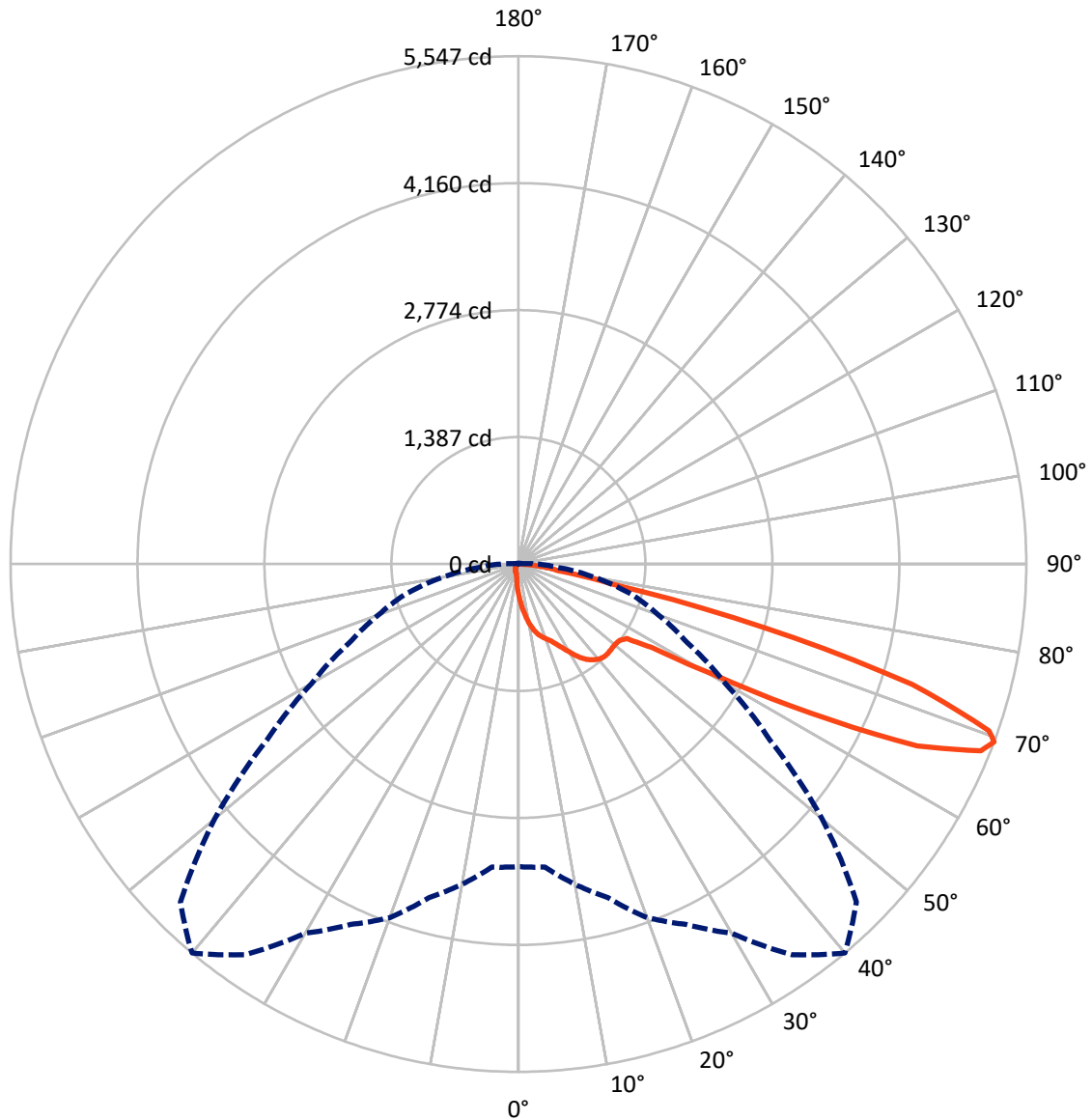
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.8 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P162611
CATALOG NUMBER: ECM-F03-LED-E1-SL4-HSS-7030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P162611

CATALOG NUMBER: ECM-F03-LED-E1-SL4-HSS-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	130.3	0.0	130.3
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	4245.7	0.0	4245.7
	% Fixture	97.0	0.0	97.0
Total	Lumens	4376.1	0.0	4376.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.0	0.8
10°-20°	117.1	2.7
20°-30°	224.1	5.1
30°-40°	372.8	8.5
40°-50°	504.4	11.5
50°-60°	788.8	18.0
60°-70°	1621.8	37.1
70°-80°	652.6	14.9
80°-90°	60.4	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°	4376.1	100.0
0°-180°	4376.1	100.0



REPORT NUMBER: P162611

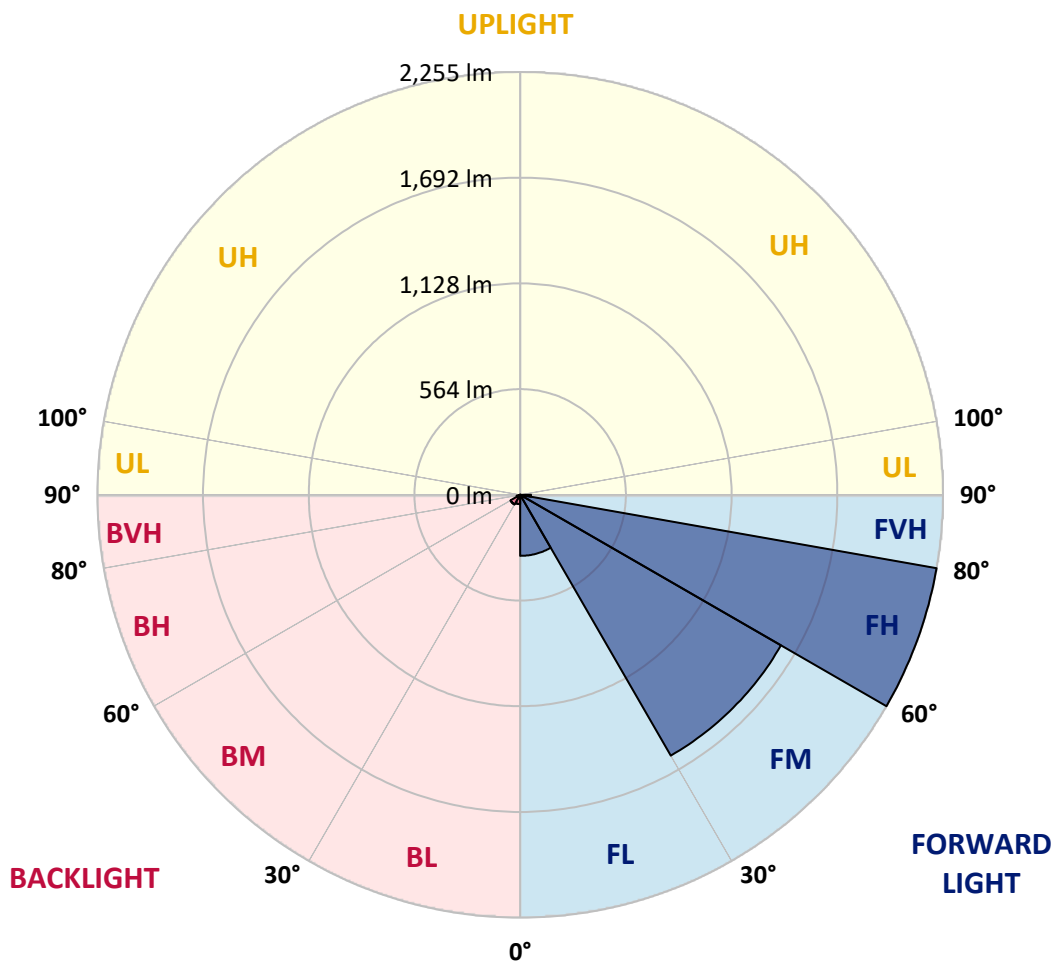
CATALOG NUMBER: ECM-F03-LED-E1-SL4-HSS-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	325.7	7.4			
FM	(30°-60°)	1606.5	36.7			
FH	(60°-80°)	2255.4	51.5			G2/5000
FVH	(80°-90°)	58.1	1.3			G1/100
BL	(0°-30°)	49.6	1.1	B0/110		
BM	(30°-60°)	59.5	1.4	B0/220		
BH	(60°-80°)	19.0	0.4	B0/110		G0/110
BVH	(80°-90°)	2.3	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: P162611
 CATALOG NUMBER: ECM-F03-LED-E1-SL4-HSS-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
2.5°	440.9	435.9	430.2	430.2	422.9	422.9	418.6	407.2	405.7	399.3	392.8
5°	562.7	558.4	551.2	544.8	539.1	529.1	521.9	508.3	493.2	478.9	466.0
7.5°	681.8	679.6	666.7	664.6	655.2	638.7	624.4	604.3	578.5	558.4	534.8
10°	792.1	787.1	784.2	772.1	758.4	740.5	718.3	693.9	663.8	632.3	598.6
12.5°	879.6	876.7	863.9	858.8	844.5	826.5	798.6	767.0	737.0	696.1	656.7
15°	944.8	939.8	931.2	923.3	906.1	890.3	864.5	830.1	793.6	749.1	701.8
17.5°	999.3	990.0	987.8	975.7	957.7	939.1	910.4	878.9	835.9	791.4	739.8
20°	1072.4	1059.5	1055.2	1037.3	1016.5	990.7	957.7	918.3	873.1	824.4	771.3
22.5°	1158.4	1149.2	1139.8	1124.1	1097.5	1060.9	1012.9	969.9	912.6	858.8	801.4
25°	1280.4	1272.4	1257.4	1235.9	1202.9	1159.2	1101.1	1038.0	970.6	901.9	834.4
27.5°	1398.6	1391.4	1380.7	1364.2	1327.0	1278.9	1207.2	1126.9	1041.6	958.5	883.9
30°	1509.7	1503.2	1492.5	1476.0	1443.1	1395.7	1314.7	1228.7	1122.6	1025.8	936.2
32.5°	1629.5	1627.3	1615.1	1591.5	1562.8	1498.9	1410.8	1318.3	1210.8	1098.9	994.3
35°	1764.9	1748.4	1737.0	1713.3	1664.6	1596.4	1493.2	1392.2	1278.9	1164.2	1047.4
37.5°	1879.6	1863.9	1849.5	1819.4	1759.9	1673.2	1556.3	1445.2	1328.4	1211.5	1092.5
40°	1963.5	1955.6	1938.4	1899.0	1832.3	1729.1	1602.9	1481.7	1364.2	1246.7	1129.0
42.5°	2025.8	2013.7	1994.3	1953.4	1874.6	1757.0	1621.5	1496.8	1380.7	1268.1	1152.7
45°	2048.8	2038.8	2020.9	1976.4	1891.1	1764.9	1620.9	1492.5	1381.4	1274.6	1168.5
47.5°	2035.2	2025.2	2009.4	1967.8	1883.9	1755.6	1608.0	1480.3	1374.2	1276.7	1182.9
50°	1990.0	1984.3	1972.1	1937.0	1861.7	1737.7	1596.4	1473.9	1372.8	1287.5	1202.9
52.5°	1985.7	1982.2	1967.1	1932.0	1855.3	1731.9	1595.0	1477.5	1385.0	1301.1	1217.2
55°	2426.6	2375.7	2261.7	2164.9	2005.8	1816.5	1667.5	1535.5	1436.6	1354.9	1296.1
57.5°	3448.8	3372.8	3223.0	3038.8	2673.2	2314.1	2026.6	1818.7	1716.2	1678.9	1701.2
60°	3927.7	3914.1	3890.5	3803.0	3615.9	3306.9	2962.8	2590.7	2441.7	2428.8	2473.9
62.5°	4155.0	4146.4	4153.5	4142.7	4084.7	3994.4	3895.4	3734.9	3587.2	3491.9	3289.7
65°	4259.6	4265.3	4306.2	4338.5	4345.6	4369.3	4441.7	4641.7	4787.9	4542.1	3980.8
67.5°	3993.7	4027.4	4121.3	4238.8	4376.5	4509.8	4724.9	5146.4	5446.8	5157.8	4360.7
69°	3306.2	3322.7	3552.1	3773.6	4109.8	4345.0	4656.7	5209.5	5547.1	5221.0	4330.6
70°	2602.9	2618.0	2863.9	3165.0	3733.5	4036.0	4443.9	5102.7	5453.2	5137.0	4175.8
72.5°	1174.2	1152.7	1239.5	1400.8	2018.7	2499.0	3212.3	4134.1	4499.1	4115.5	3124.1
75°	820.1	810.8	820.1	820.8	916.9	1182.9	1492.5	2240.9	2771.4	2391.4	1492.5
77.5°	635.2	628.7	622.3	615.1	626.6	701.8	731.9	795.0	1032.3	976.3	569.2
80°	502.5	496.8	512.6	507.5	507.5	516.1	510.4	486.8	442.3	410.0	367.0
82.5°	233.7	235.1	235.1	255.2	307.6	359.1	375.6	352.0	312.5	265.9	214.4
85°	22.2	25.1	42.3	65.2	129.8	146.3	147.0	121.8	121.8	96.1	77.4
87.5°	0.0	0.8	0.8	0.8	6.5	17.9	15.1	4.3	2.2	2.2	3.6
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: P162611
 CATALOG NUMBER: ECM-F03-LED-E1-SL4-HSS-7030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
2.5°	381.4	379.3	370.6	362.0	354.2	345.6	337.6	329.7	321.1	314.7	306.8
5°	445.9	430.2	412.2	395.0	377.8	359.9	341.3	324.7	307.6	291.8	276.7
7.5°	511.1	480.3	455.9	425.1	397.1	369.2	343.4	316.8	292.5	269.6	248.1
10°	566.3	529.1	491.1	451.6	411.5	374.2	338.4	306.8	274.5	246.6	220.1
12.5°	611.5	564.1	517.5	468.1	422.9	375.6	331.2	293.2	255.2	223.6	196.4
15°	652.4	597.8	542.0	484.6	427.3	373.5	324.0	276.7	238.0	202.1	171.3
17.5°	685.3	622.9	559.8	495.4	433.7	370.6	314.7	265.3	220.1	182.8	152.7
20°	714.0	648.7	580.7	508.3	438.0	369.9	306.8	250.9	204.3	164.9	135.5
22.5°	740.5	675.3	602.1	524.8	444.5	369.2	299.6	240.1	190.7	151.3	121.8
25°	770.7	701.8	625.1	542.0	455.9	372.0	295.3	231.6	178.5	138.4	111.1
27.5°	804.4	731.9	652.4	563.5	470.9	377.8	293.9	222.2	167.8	126.1	102.5
30°	851.6	767.8	679.6	584.9	484.6	384.2	292.5	216.5	157.0	116.9	93.9
32.5°	893.2	802.9	709.7	607.2	499.7	390.7	291.8	208.6	147.0	107.5	87.5
35°	936.9	835.1	735.5	628.7	512.6	397.9	291.0	202.9	137.6	98.2	81.0
37.5°	974.9	862.4	755.6	647.3	526.9	404.3	291.8	197.8	129.0	90.3	75.2
40°	1007.2	890.3	777.8	664.6	542.0	414.3	292.5	192.9	120.4	83.2	70.3
42.5°	1035.8	916.9	801.4	683.9	559.2	425.9	296.8	188.5	113.2	76.7	65.2
45°	1058.1	941.2	827.3	711.2	587.1	444.5	304.7	185.6	106.1	71.0	60.9
47.5°	1081.0	977.1	871.0	754.1	628.0	473.9	318.3	185.0	100.4	66.7	57.4
50°	1112.6	1012.9	909.7	797.9	665.2	504.0	334.8	185.6	93.2	62.4	53.8
52.5°	1135.5	1049.5	959.9	873.9	754.1	595.7	398.6	198.6	89.6	58.8	49.5
55°	1271.0	1255.9	1258.1	1272.4	1180.0	1013.7	666.7	286.7	105.4	66.7	48.8
57.5°	1792.2	1845.2	1876.0	1875.3	1722.6	1428.7	895.4	368.5	117.5	77.4	58.1
60°	2477.5	2437.4	2380.7	2240.9	2038.0	1630.9	1001.5	396.4	101.8	61.7	53.1
62.5°	3083.2	2848.1	2639.5	2413.0	2147.0	1701.2	1022.9	394.3	88.9	46.6	37.2
65°	3461.1	3038.1	2701.2	2417.3	2104.0	1642.3	967.8	362.0	75.2	38.0	30.8
67.5°	3551.4	2935.6	2458.8	2096.9	1757.8	1278.2	710.4	272.4	58.8	31.5	27.2
69°	3354.2	2609.4	2037.4	1626.6	1278.9	848.0	439.4	172.1	45.2	28.7	25.1
70°	3085.4	2269.6	1659.5	1305.4	947.0	595.7	307.6	121.2	36.6	26.5	22.9
72.5°	1985.0	1192.1	815.8	567.8	390.7	237.3	120.4	54.5	28.0	22.2	18.6
75°	769.9	440.9	319.7	243.0	190.0	131.9	73.1	35.1	23.7	18.6	14.3
77.5°	379.3	290.4	237.3	162.7	94.6	58.8	39.4	27.2	19.4	13.6	9.3
80°	299.6	199.3	119.0	73.8	55.9	42.3	30.1	22.2	14.3	8.6	6.5
82.5°	153.4	83.8	61.7	50.2	41.5	32.9	24.4	15.8	9.3	5.7	5.1
85°	48.0	35.1	31.5	30.8	28.7	23.7	17.2	10.0	5.7	3.6	3.6
87.5°	3.6	5.1	6.5	5.1	5.7	5.1	6.5	4.3	2.9	2.9	2.2
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: P162611

CATALOG NUMBER: ECM-F03-LED-E1-SL4-HSS-7030

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
2.5°	301.1	292.5	284.6	279.6	270.2	266.7	263.1	261.6	255.2	256.7	250.9
5°	263.1	248.1	236.6	225.1	214.4	206.4	200.0	192.1	185.6	182.8	177.0
7.5°	228.7	209.3	194.3	182.1	169.2	159.2	150.6	144.8	139.0	133.3	130.4
10°	198.6	177.8	160.6	148.4	136.2	127.6	121.2	116.9	113.2	111.1	110.4
12.5°	170.6	150.6	134.7	124.0	114.7	110.4	107.5	105.4	104.7	104.0	104.0
15°	149.1	129.0	116.9	109.0	104.7	102.5	101.8	100.4	98.9	98.2	98.2
17.5°	129.0	114.0	105.4	101.1	98.9	97.5	96.1	94.6	93.2	92.4	92.4
20°	115.4	103.2	98.9	96.1	93.9	92.4	90.3	88.9	88.1	87.5	86.7
22.5°	104.7	96.8	93.9	91.8	88.9	86.7	85.3	83.8	82.4	81.7	81.0
25°	96.8	91.8	89.6	86.7	83.8	81.7	79.5	77.4	76.0	75.2	73.8
27.5°	91.0	87.5	84.6	81.0	78.1	76.0	73.8	71.7	70.3	68.8	68.1
30°	86.0	82.4	78.9	76.0	72.4	70.3	67.4	65.2	64.5	63.1	61.7
32.5°	81.0	77.4	73.8	70.3	66.7	63.8	62.4	59.5	58.1	57.4	55.9
35°	75.2	71.7	67.4	64.5	60.9	58.1	55.9	53.8	52.3	50.9	50.2
37.5°	70.3	66.0	61.7	58.1	55.2	52.3	50.2	48.0	46.6	45.2	44.4
40°	64.5	60.2	55.9	52.3	49.5	47.4	45.2	43.0	41.5	40.9	40.9
42.5°	59.5	54.5	50.2	47.4	45.2	42.3	40.1	38.0	37.2	36.6	37.2
45°	54.5	49.5	45.8	43.0	40.9	38.0	35.8	34.4	33.7	34.4	35.1
47.5°	50.2	45.2	41.5	39.4	37.2	35.1	32.9	31.5	31.5	32.9	34.4
50°	45.8	40.9	38.0	36.6	34.4	32.3	29.4	28.7	29.4	30.8	32.3
52.5°	41.5	35.8	33.7	32.9	30.8	28.7	26.5	25.8	26.5	28.0	27.2
55°	37.2	31.5	30.8	30.1	28.0	25.1	22.9	22.9	22.9	22.2	20.8
57.5°	35.8	28.0	27.2	26.5	24.4	21.5	20.1	18.6	17.9	15.8	15.1
60°	37.2	25.1	25.1	23.7	21.5	18.6	16.5	14.3	12.9	11.5	11.5
62.5°	30.1	22.9	22.2	20.8	17.9	15.1	12.9	10.8	10.0	9.3	9.3
65°	24.4	20.8	19.4	17.2	15.1	12.2	10.0	8.6	7.9	7.9	8.6
67.5°	22.2	18.6	16.5	14.3	12.2	9.3	7.9	7.2	7.2	7.9	7.9
69°	20.8	17.2	15.1	12.9	10.8	8.6	7.2	7.2	7.2	7.2	7.9
70°	19.4	16.5	14.3	12.2	9.3	7.2	6.5	6.5	7.2	7.2	7.9
72.5°	15.1	12.9	12.2	10.0	7.2	6.5	5.7	6.5	6.5	7.2	7.2
75°	11.5	9.3	9.3	7.9	5.7	5.1	5.1	5.7	5.7	6.5	6.5
77.5°	7.9	6.5	6.5	5.7	5.1	4.3	4.3	5.1	5.7	5.7	6.5
80°	5.7	5.1	4.3	5.1	4.3	3.6	4.3	5.1	5.1	5.7	5.7
82.5°	4.3	4.3	4.3	4.3	3.6	3.6	4.3	4.3	5.1	5.7	5.7
85°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.3	4.3	5.1	5.1
87.5°	2.2	2.2	2.2	2.9	2.9	3.6	3.6	3.6	3.6	4.3	4.3
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: P162611

CATALOG NUMBER: ECM-F03-LED-E1-SL4-HSS-7030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	330.5	330.5	330.5	330.5
2.5°	249.5	248.7	245.9	246.6
5°	174.9	170.6	173.5	172.7
7.5°	128.3	127.6	126.9	128.3
10°	109.7	109.7	109.0	109.7
12.5°	103.2	103.2	103.2	103.2
15°	98.2	98.2	97.5	97.5
17.5°	92.4	92.4	92.4	91.8
20°	86.7	86.0	86.0	86.0
22.5°	80.3	79.5	79.5	79.5
25°	73.8	73.1	73.1	73.1
27.5°	67.4	66.7	66.0	66.0
30°	60.9	60.2	59.5	59.5
32.5°	54.5	53.8	53.1	53.1
35°	48.8	48.8	48.0	47.4
37.5°	43.7	43.7	43.7	43.7
40°	40.1	40.9	40.9	40.9
42.5°	38.0	38.7	39.4	40.1
45°	36.6	38.0	38.7	38.7
47.5°	35.8	36.6	37.2	37.2
50°	32.9	32.3	32.3	32.3
52.5°	26.5	25.1	24.4	23.7
55°	19.4	18.6	17.2	17.2
57.5°	13.6	13.6	12.9	12.9
60°	10.8	10.8	10.0	10.8
62.5°	9.3	9.3	9.3	9.3
65°	8.6	8.6	8.6	8.6
67.5°	8.6	8.6	8.6	8.6
69°	7.9	7.9	7.9	7.9
70°	7.9	7.9	7.9	7.9
72.5°	7.2	7.2	7.2	7.2
75°	6.5	7.2	7.2	7.2
77.5°	6.5	6.5	6.5	6.5
80°	5.7	5.7	6.5	6.5
82.5°	5.7	5.7	5.7	5.7
85°	5.1	5.1	5.7	5.7
87.5°	4.3	4.3	5.1	5.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)