Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P139435

Luminaire Tested: **ENV-F02-LED-E1-BL2**

Issue Date: 03/03/2020

Report Generated By E0454808

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P139435
	REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33644)
Test Lab:	INNOVATION CENTER-P3
Issue Date:	03/03/2020
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	INVUE
Catalog Number:	ENV-F02-LED-E1-BL2
Description:	ENTRI LED LUMINAIRE
	(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source:	(14) 4000K CCT, 70 CRI LEDs
Ballast/Driver:	-

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	4520.8 lumens
Efficiency:	N/A
Efficacy:	91.7 lumens/watt
Luminous Opening:	Rectangular (W 1' x L: 0.33' x H: 0')
IES Classification:	Type II - Short - Semi-Cutoff
BUG Rating:	B1 - U0 - G1

Input Watts (W):	49.3
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

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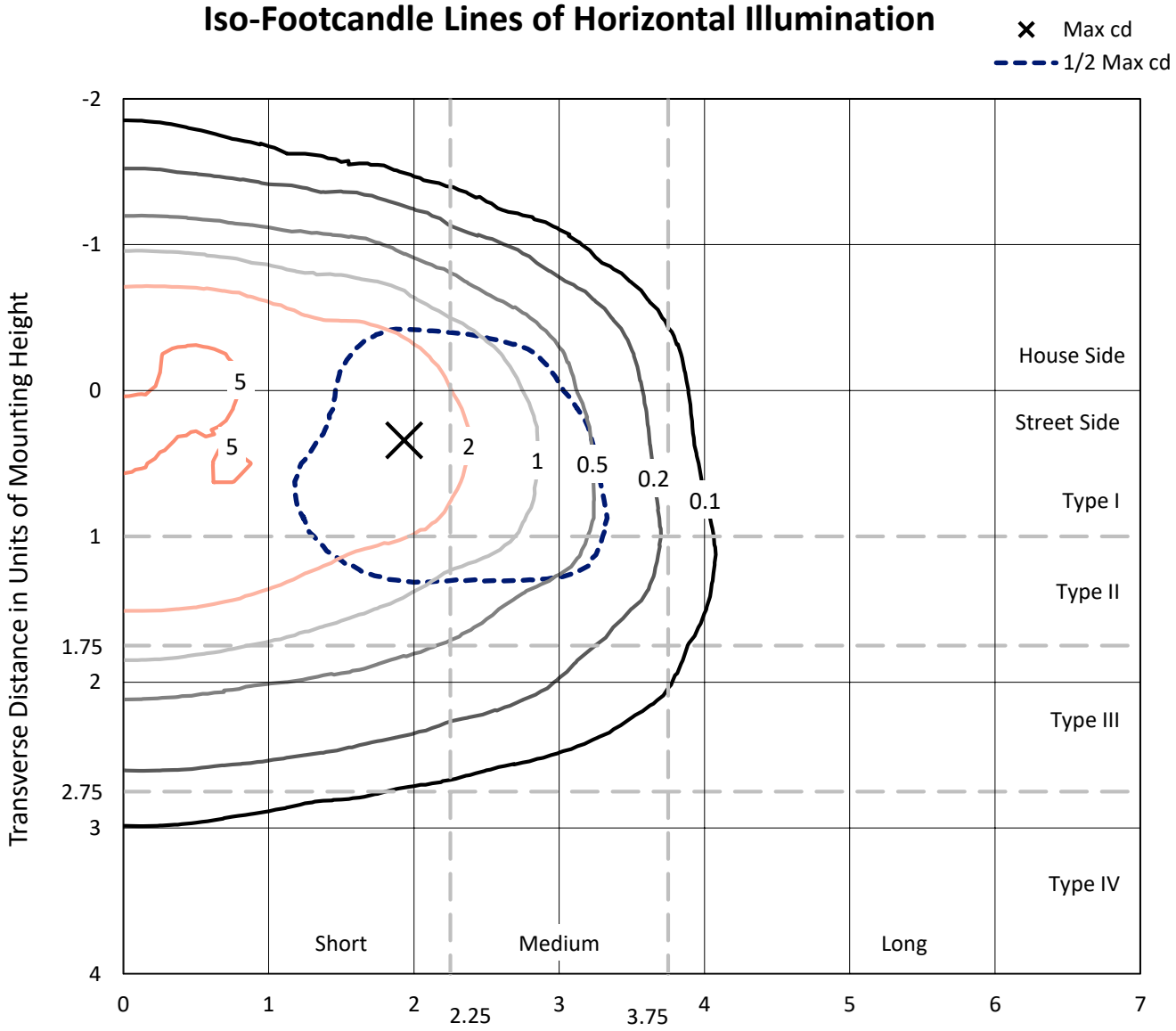
Iso-Footcandle Lines of Horizontal Illumination



Based on 10 foot mounting height. Maximum calculated value = 5.9 fc
Type II - Short - Semi-Cutoff

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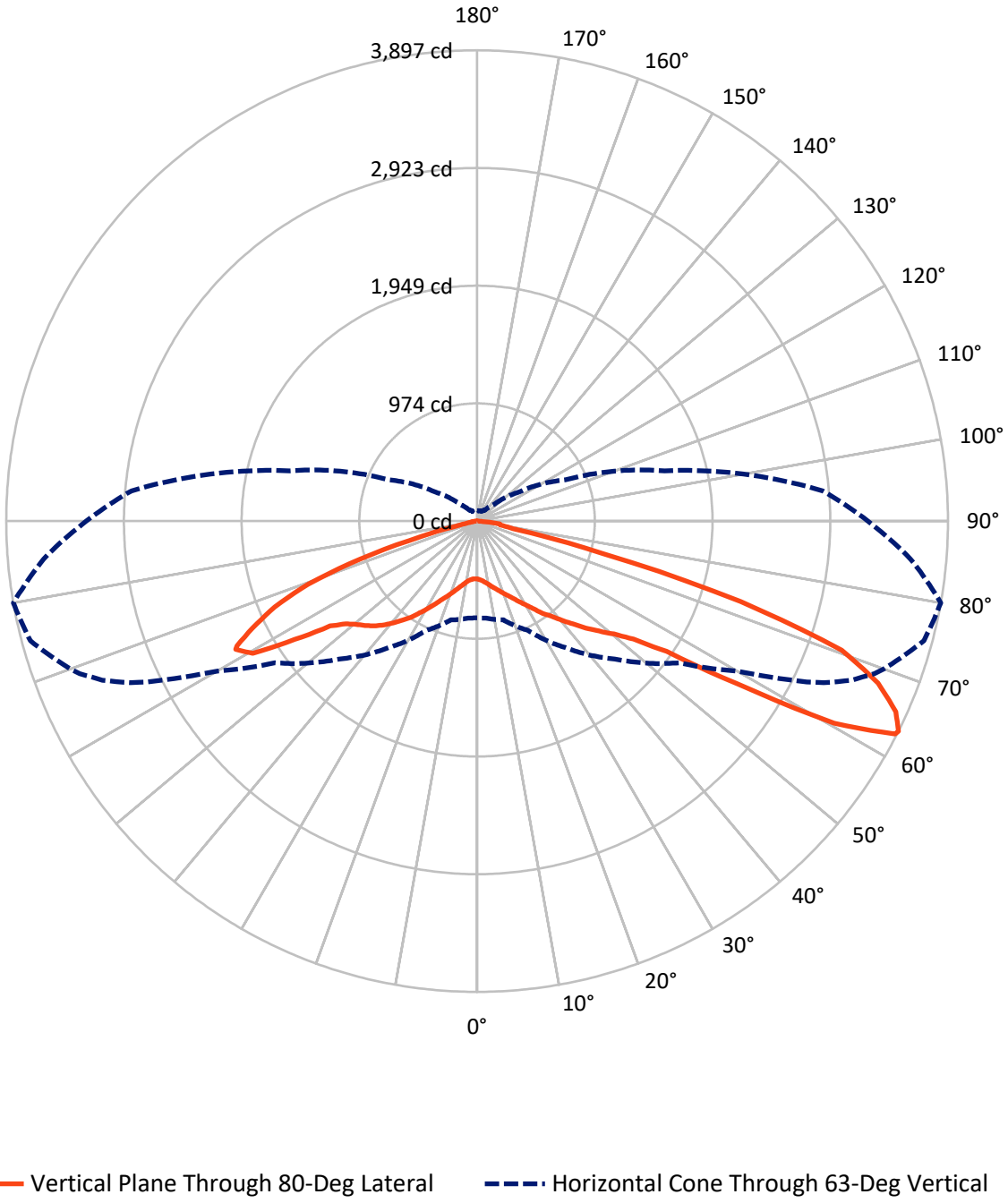
Luminous Intensity Polar Plot



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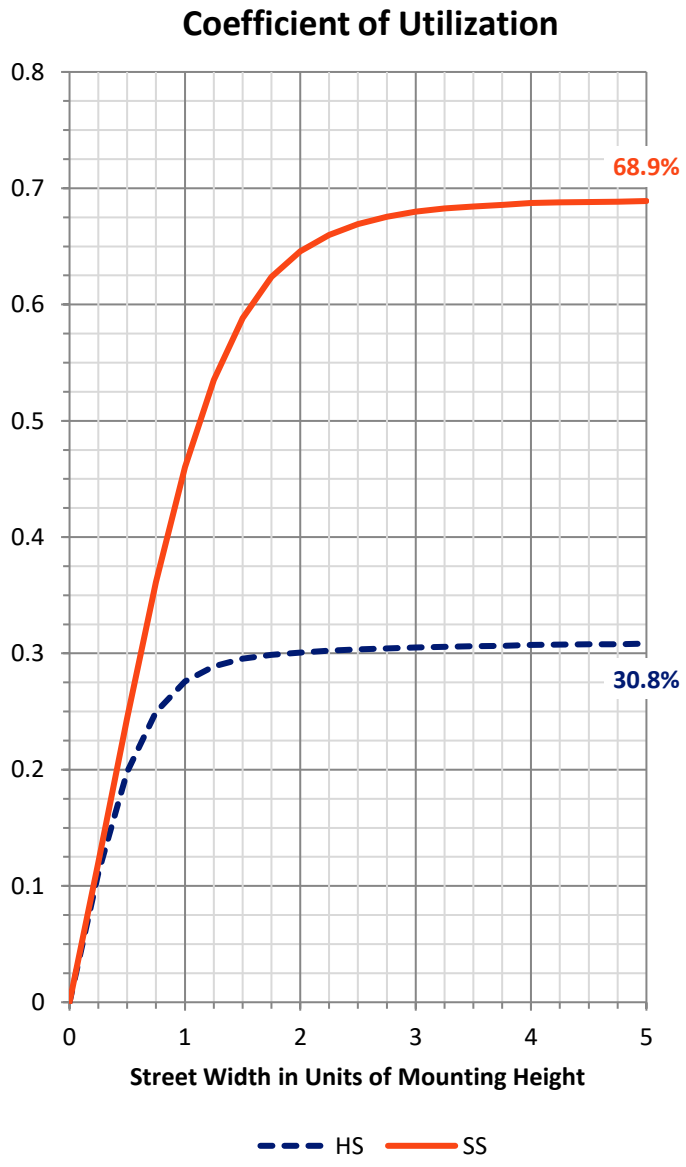
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1407.9	0.0	1407.9
	% Fixture	31.1	0.0	31.1
Street Side	Lumens	3112.8	0.0	3112.8
	% Fixture	68.9	0.0	68.9
Total	Lumens	4520.8	0.0	4520.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.0	1.1
10°-20°	164.6	3.6
20°-30°	309.3	6.8
30°-40°	490.9	10.9
40°-50°	740.9	16.4
50°-60°	1041.4	23.0
60°-70°	1215.1	26.9
70°-80°	469.7	10.4
80°-90°	40.9	0.9
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°	4520.8	100.0
0°-180°	4520.8	100.0



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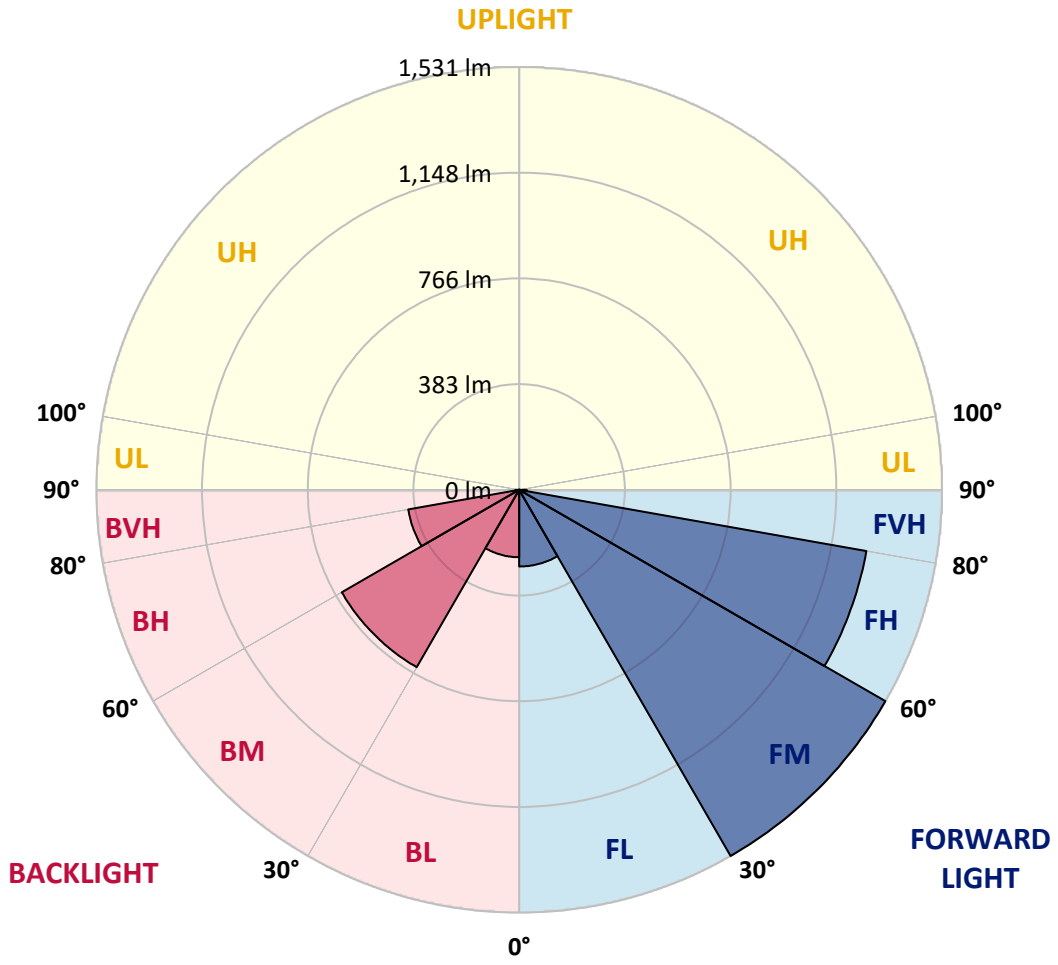
CATALOG NUMBER: ENV-F02-LED-E1-BL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	277.7	6.1			
FM	(30°-60°)	1531.3	33.9			
FH	(60°-80°)	1276.6	28.2			G1/1800
FVH	(80°-90°)	27.2	0.6			G1/100
BL	(0°-30°)	244.2	5.4	B1/500		
BM	(30°-60°)	741.9	16.4	B1/1000		
BH	(60°-80°)	408.2	9.0	B1/500		G1/500
BVH	(80°-90°)	13.7	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1
Type II Short



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REPORT NUMBER: P139435
CATALOG NUMBER: ENV-F02-LED-E1-BL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	478.8	478.8	478.8	478.8	478.8	478.8	478.8	478.8	478.8	478.8	478.8
2.5°	502.7	501.1	501.9	501.1	501.1	499.4	494.5	494.5	493.7	494.5	492.8
5°	530.0	529.2	528.3	526.7	526.7	523.4	515.1	513.5	514.3	512.7	509.3
7.5°	560.5	559.7	558.1	554.8	553.1	548.1	536.6	534.9	534.1	532.5	530.0
10°	591.1	590.3	587.8	583.6	579.5	572.1	560.5	556.4	555.6	554.8	552.3
12.5°	622.4	620.0	620.8	613.4	606.8	597.7	584.5	580.3	579.5	578.7	577.9
15°	657.1	656.3	654.6	644.7	632.4	620.0	606.8	601.8	598.5	599.3	598.5
17.5°	690.1	689.3	683.5	669.5	653.0	639.0	622.4	619.1	619.1	618.3	618.3
20°	714.1	713.3	707.5	690.1	668.7	653.0	639.8	639.8	639.0	639.8	640.6
22.5°	724.8	724.8	717.4	698.4	675.3	663.7	659.6	662.1	662.9	663.7	665.4
25°	728.9	728.9	721.5	699.2	677.8	679.4	684.4	688.5	690.1	690.1	695.9
27.5°	736.4	737.2	727.3	703.3	686.0	701.7	714.1	719.9	722.3	724.0	731.4
30°	758.7	757.8	749.6	724.0	710.8	733.1	755.4	761.1	766.9	766.9	775.2
32.5°	791.7	790.9	785.9	766.1	760.3	788.4	808.2	820.6	819.7	821.4	827.2
35°	835.4	836.3	839.6	834.6	839.6	867.6	889.9	894.9	895.7	896.5	897.3
37.5°	885.0	885.8	903.9	919.6	941.9	983.2	996.4	998.9	993.1	993.1	991.5
40°	922.1	926.2	966.7	1008.0	1055.0	1111.2	1131.0	1126.0	1121.9	1118.6	1108.7
42.5°	998.1	1000.5	1043.5	1102.9	1168.9	1246.5	1281.2	1264.7	1263.9	1249.0	1241.6
45°	1074.0	1080.6	1126.8	1193.7	1273.0	1380.3	1431.5	1417.4	1414.9	1408.3	1387.7
47.5°	1134.3	1143.4	1194.5	1273.8	1364.6	1488.4	1580.1	1590.0	1584.2	1576.8	1560.2
50°	1185.5	1192.9	1244.9	1331.6	1435.6	1571.0	1702.2	1737.7	1742.7	1739.4	1735.3
52.5°	1218.5	1225.9	1277.1	1369.5	1476.9	1632.1	1793.0	1863.2	1878.1	1877.2	1894.6
55°	1219.3	1227.6	1280.4	1381.9	1500.0	1674.2	1877.2	1987.9	2006.0	2028.3	2065.5
57.5°	1173.9	1182.2	1248.2	1365.4	1506.6	1707.2	1959.0	2153.8	2203.3	2247.1	2349.4
60°	1047.6	1050.9	1123.5	1280.4	1475.2	1699.8	2020.9	2296.6	2366.8	2461.7	2626.8
62.5°	853.6	860.2	904.8	1057.5	1329.1	1634.5	2045.7	2455.9	2571.5	2710.2	2974.4
63°	*799.9*	*805.7*	*847.0*	*998.1*	*1279.6*	*1613.9*	*2044.8*	*2481.5*	*2608.7*	*2751.5*	*3036.3*
65°	617.5	619.1	649.7	763.6	1050.1	1463.7	2000.2	2445.2	2606.2	2772.9	3071.8
67.5°	497.8	503.6	534.1	614.2	829.7	1229.2	1800.5	2118.3	2228.1	2392.4	2748.2
70°	389.6	399.6	428.4	519.3	707.5	989.8	1514.8	1768.3	1836.0	1914.4	2216.5
72.5°	257.6	260.0	265.0	315.4	493.7	770.2	1260.6	1433.1	1459.5	1515.7	1663.4
75°	121.4	130.4	137.9	163.5	238.6	504.4	913.9	1017.9	1049.2	1107.9	1161.5
77.5°	52.8	52.0	55.3	75.1	125.5	224.5	568.8	752.1	762.8	749.6	726.5
80°	16.5	17.3	18.2	19.8	39.6	107.3	246.0	505.2	558.1	593.6	583.6
82.5°	1.7	0.8	2.5	5.0	8.3	15.7	92.5	236.9	298.0	365.7	452.4
85°	0.0	0.0	0.8	0.8	1.7	3.3	5.8	24.8	41.3	47.9	94.9
87.5°	0.0	0.0	0.8	0.8	1.7	2.5	2.5	3.3	3.3	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CATALOG NUMBER: ENV-F02-LED-E1-BL2

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	75°	80°	85°	90°	95°
0°	478.8	478.8	478.8	478.8	478.8	478.8	478.8	*478.8*	478.8	478.8	478.8
2.5°	492.0	492.0	490.4	491.2	490.4	490.4	488.7	*487.1*	486.2	482.1	479.6
5°	509.3	509.3	508.5	506.9	506.9	506.0	501.9	*497.8*	495.3	490.4	485.4
7.5°	529.2	528.3	526.7	525.0	525.0	524.2	518.4	*514.3*	509.3	501.9	496.1
10°	552.3	551.5	549.8	547.3	547.3	546.5	540.7	*534.1*	530.0	520.9	513.5
12.5°	577.0	574.6	573.7	572.1	570.4	570.4	565.5	*558.9*	555.6	545.7	538.2
15°	597.7	596.0	595.2	594.4	593.6	591.9	587.8	*582.0*	579.5	571.3	565.5
17.5°	617.5	617.5	618.3	616.7	615.8	614.2	611.7	*610.1*	607.6	600.2	596.9
20°	640.6	640.6	642.3	641.4	640.6	643.1	642.3	*641.4*	641.4	634.8	632.4
22.5°	667.8	667.0	669.5	668.7	669.5	672.0	675.3	*673.6*	676.9	672.8	671.2
25°	699.2	698.4	700.9	702.5	704.2	705.8	712.4	*714.1*	718.2	717.4	714.1
27.5°	734.7	735.5	736.4	740.5	743.0	744.6	753.7	*758.7*	766.9	763.6	766.9
30°	776.0	780.1	783.4	787.6	788.4	790.0	804.9	*809.8*	814.0	816.4	821.4
32.5°	833.0	835.4	836.3	841.2	842.9	845.3	861.0	*867.6*	873.4	874.2	883.3
35°	902.3	903.9	906.4	908.9	912.2	910.6	928.7	*938.6*	946.1	946.9	956.8
37.5°	993.9	988.2	990.6	987.3	982.4	982.4	988.2	*998.1*	1006.3	1012.9	1022.8
40°	1103.7	1099.6	1098.8	1091.3	1083.1	1075.7	1072.4	*1078.1*	1084.7	1090.5	1102.9
42.5°	1229.2	1225.1	1211.0	1206.1	1192.1	1183.8	1161.5	*1164.0*	1175.5	1178.8	1186.3
45°	1376.2	1361.3	1356.3	1325.8	1320.0	1308.5	1266.4	*1263.1*	1273.0	1273.8	1268.8
47.5°	1543.7	1533.0	1521.4	1500.0	1477.7	1458.7	1394.3	*1360.5*	1371.2	1370.4	1346.4
50°	1726.2	1724.5	1707.2	1693.2	1673.3	1646.1	1531.3	*1469.4*	1477.7	1470.3	1426.5
52.5°	1900.4	1895.4	1894.6	1883.8	1876.4	1867.3	1727.8	*1621.3*	1602.3	1586.7	1530.5
55°	2083.6	2096.0	2087.8	2105.1	2118.3	2116.6	2058.9	*1902.8*	1806.2	1793.9	1708.0
57.5°	2389.1	2418.8	2458.4	2460.1	2495.6	2546.7	2650.8	*2538.5*	2296.6	2248.7	2134.0
60°	2739.1	2815.9	2914.9	2963.6	3039.6	3118.8	3379.7	*3397.0*	3058.6	2873.7	2663.1
62.5°	3090.8	3191.5	3308.7	3384.7	3478.8	3540.7	3816.4	*3882.4*	3573.7	3232.8	2886.0
63°	*3165.1*	*3268.3*	*3369.8*	*3444.1*	*3523.3*	*3580.3*	*3828.0*	*3897.3*	*3601.8*	*3233.6*	*2872.0*
65°	3203.9	3300.4	3379.7	3445.7	3498.6	3537.4	3733.0	*3808.1*	3564.6	3113.9	2714.3
67.5°	2909.1	3064.3	3164.2	3244.3	3298.0	3351.6	3531.6	*3578.7*	3406.1	2881.1	2474.9
70°	2408.1	2587.2	2744.9	2869.5	2962.0	3043.7	3232.8	*3200.6*	3052.0	2503.8	2099.3
72.5°	1771.6	1927.6	2081.1	2222.3	2342.8	2446.9	2571.5	*2280.1*	2053.9	1665.1	1452.9
75°	1191.2	1225.1	1295.2	1365.4	1409.2	1438.9	1362.1	*1085.6*	881.7	790.9	691.8
77.5°	703.3	680.2	682.7	665.4	653.8	651.3	546.5	*303.8*	160.2	163.5	171.7
80°	561.4	535.8	508.5	478.0	458.2	436.7	355.8	*194.8*	69.3	56.1	58.6
82.5°	454.0	447.4	432.6	401.2	369.8	332.7	254.3	*187.4*	39.6	31.4	33.8
85°	88.3	99.1	89.2	97.4	72.6	68.5	40.5	*43.8*	15.7	14.0	17.3
87.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	*3.3*	3.3	3.3	6.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*0.0*	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	478.8	478.8	478.8	478.8	478.8	478.8	478.8	478.8	478.8
2.5°	475.5	472.2	469.7	466.4	464.8	462.3	461.5	459.0	459.8
5°	477.2	471.4	466.4	461.5	458.2	456.5	454.9	453.2	453.2
7.5°	485.4	478.0	472.2	466.4	463.9	460.6	459.8	457.3	457.3
10°	502.7	494.5	487.1	480.5	477.2	473.0	471.4	468.9	468.9
12.5°	528.3	520.9	512.7	502.7	496.1	491.2	487.1	485.4	485.4
15°	557.2	551.5	544.8	531.6	520.9	511.8	503.6	500.3	499.4
17.5°	591.9	586.9	580.3	565.5	548.1	529.2	515.1	508.5	507.7
20°	634.0	629.0	619.1	598.5	571.3	541.5	519.3	509.3	508.5
22.5°	676.9	676.9	660.4	626.6	586.1	546.5	516.8	503.6	501.1
25°	724.0	726.5	701.7	648.9	594.4	544.0	506.0	489.5	486.2
27.5°	780.9	778.5	737.2	666.2	595.2	534.1	488.7	468.9	465.6
30°	843.7	827.2	766.1	676.1	589.4	516.0	465.6	443.3	440.8
32.5°	906.4	870.9	787.6	677.8	572.9	489.5	435.1	411.9	408.6
35°	973.3	909.7	800.8	668.7	545.7	454.0	397.1	374.8	371.5
37.5°	1029.4	939.4	804.9	644.7	504.4	412.8	362.4	339.3	333.5
40°	1080.6	960.9	797.5	605.9	458.2	372.3	326.1	306.3	304.6
42.5°	1127.7	970.8	771.0	555.6	411.9	337.6	295.5	276.6	274.9
45°	1164.0	964.2	726.5	500.3	374.0	307.9	268.3	251.0	247.7
47.5°	1187.1	940.3	665.4	454.0	342.6	277.4	238.6	220.4	217.1
50°	1205.3	904.8	603.5	418.5	312.0	246.0	208.0	191.5	189.0
52.5°	1229.2	859.4	549.8	386.3	276.6	210.5	176.7	161.0	158.5
55°	1282.0	820.6	511.8	350.8	238.6	173.4	145.3	135.4	132.1
57.5°	1461.2	833.8	487.9	307.9	194.8	139.5	120.5	114.7	113.9
60°	1649.4	889.9	476.3	258.4	151.1	113.1	102.4	100.7	99.9
62.5°	1639.5	839.6	428.4	203.1	116.4	93.3	88.3	89.2	89.2
63°	*1606.5*	*809.0*	*412.8*	*190.7*	*110.6*	*90.8*	*85.9*	*85.9*	*85.9*
65°	1406.7	686.0	335.2	144.5	92.5	80.9	76.8	77.6	78.4
67.5°	1161.5	495.3	220.4	100.7	83.4	73.5	68.5	66.9	66.9
70°	888.3	333.5	130.4	87.5	82.6	68.5	60.3	58.6	58.6
72.5°	582.8	203.9	88.3	87.5	81.7	65.2	56.1	52.8	52.8
75°	267.5	100.7	73.5	84.2	77.6	60.3	49.5	45.4	44.6
77.5°	104.0	63.6	66.0	71.0	60.3	49.5	44.6	41.3	40.5
80°	60.3	51.2	57.8	51.2	43.8	38.0	38.0	35.5	34.7
82.5°	43.8	43.8	44.6	37.1	33.0	31.4	31.4	28.9	28.1
85°	31.4	32.2	37.1	29.7	25.6	22.3	20.6	20.6	19.8
87.5°	15.7	25.6	20.6	12.4	11.6	10.7	10.7	10.7	9.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)