

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: STREETWORKS

Report Number: P177361

Luminaire Tested: **VAL-F01-LED-E-U-GL2-HSS-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P177361
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33726)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VAL-F01-LED-E-U-GL2-HSS-8030
Description: VALET TUNNEL LED LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE II W/ GLARE CONTROL AND HOUSE SIDE SHIELD
Light Source: (7) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1239.2 lumens
Efficiency: N/A
Efficacy: 47.8 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): 25.9
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: 28.75 FT

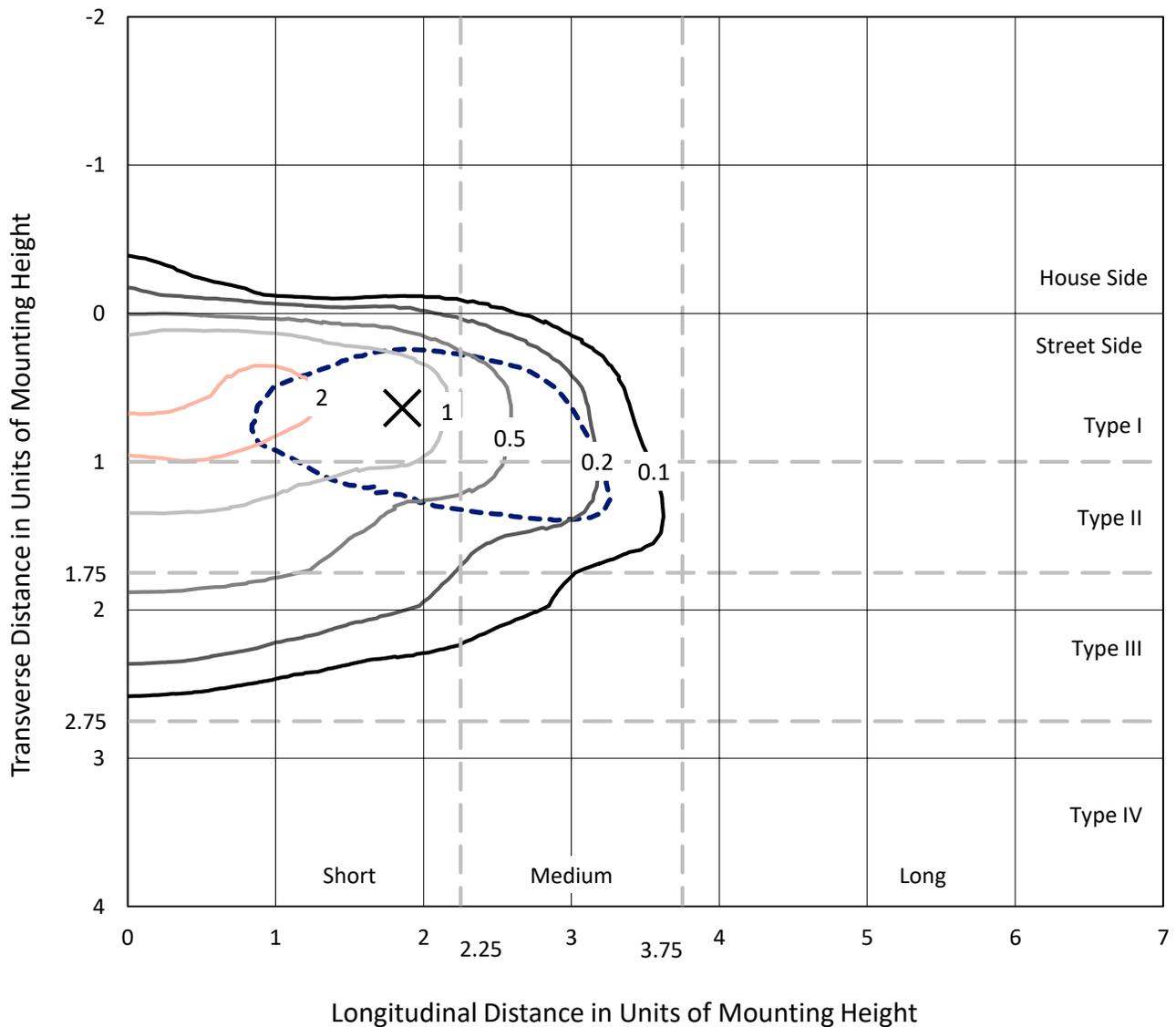


REPORT NUMBER: P177361

CATALOG NUMBER: VAL-F01-LED-E-U-GL2-HSS-8030

Iso-Footcandle Lines of Horizontal Illumination

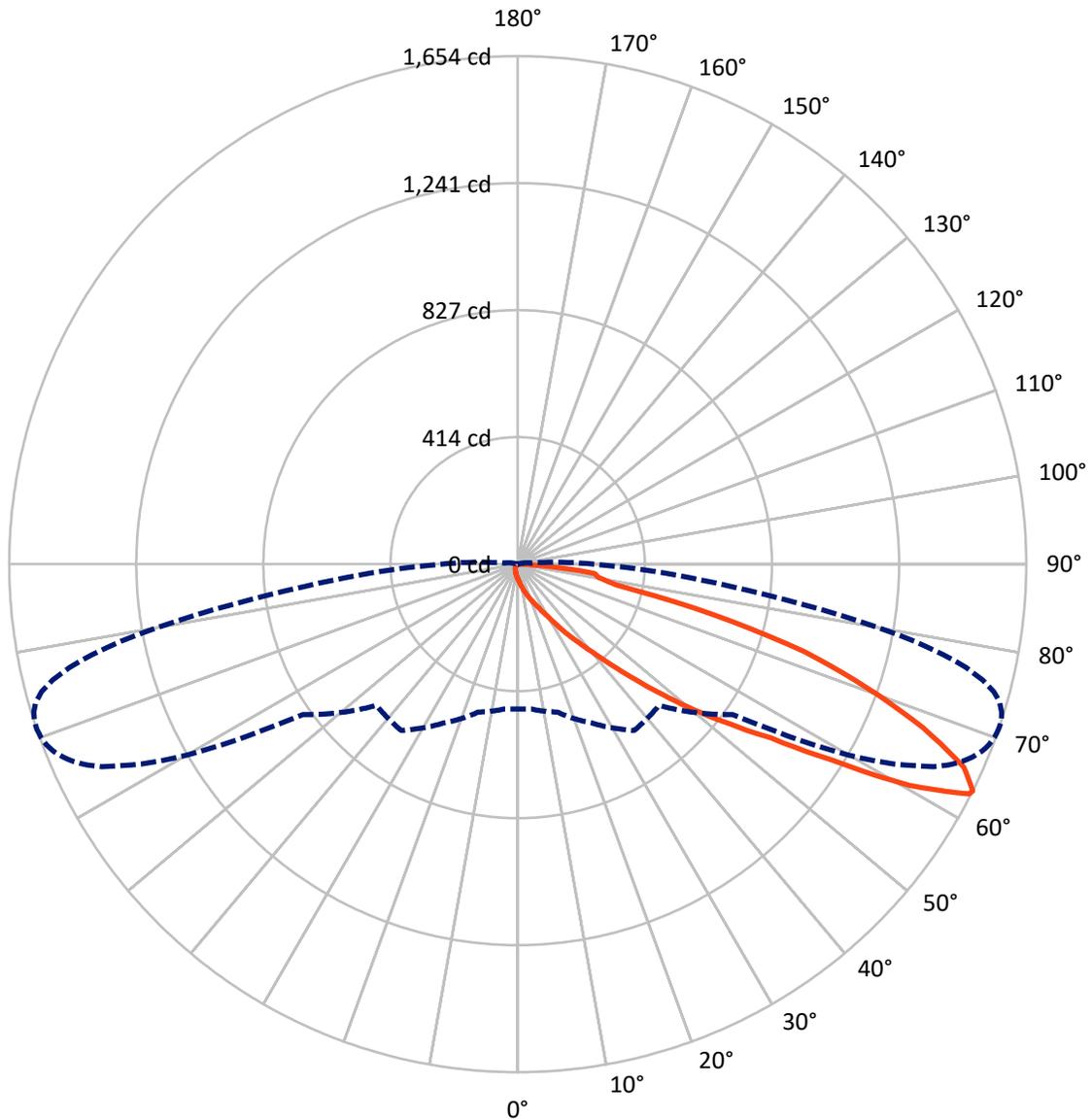
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.6 fc
 Type II - Short - Non-Cutoff

REPORT NUMBER: P177361
CATALOG NUMBER: VAL-F01-LED-E-U-GL2-HSS-8030

Luminous Intensity Polar Plot



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



REPORT NUMBER: P177361

CATALOG NUMBER: VAL-F01-LED-E-U-GL2-HSS-8030

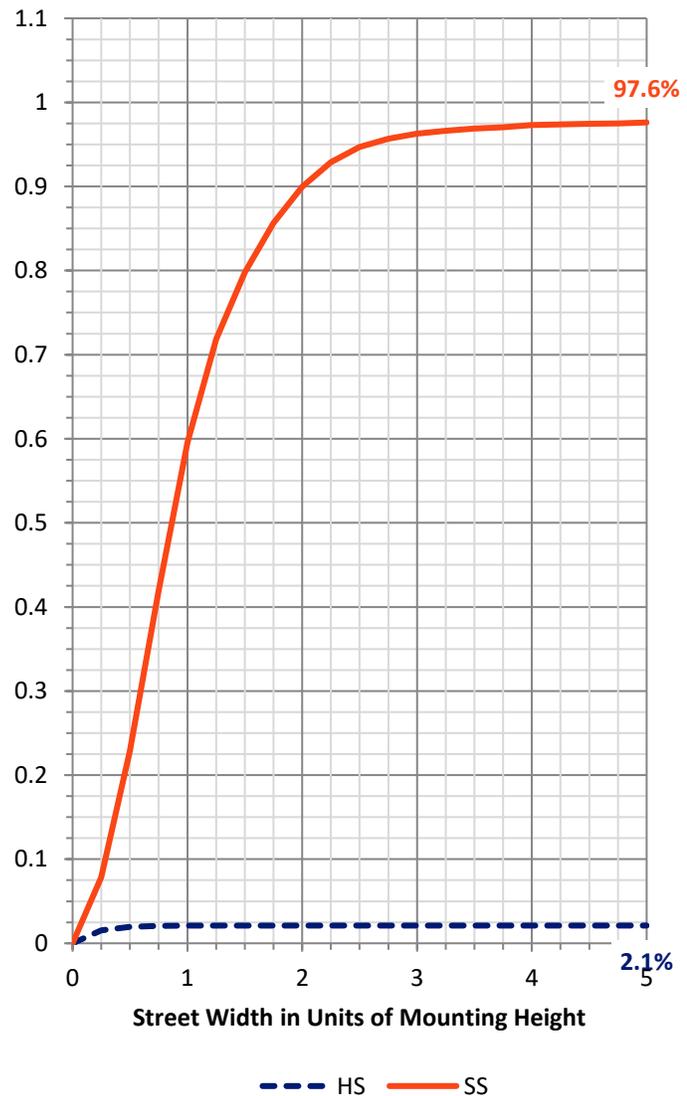
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	26.3	0.0	26.3
	% Fixture	2.1	0.0	2.1
Street Side	Lumens	1212.9	0.0	1212.9
	% Fixture	97.9	0.0	97.9
Total	Lumens	1239.2	0.0	1239.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.3	0.4
10°-20°	20.4	1.6
20°-30°	41.4	3.3
30°-40°	101.1	8.2
40°-50°	226.1	18.2
50°-60°	318.0	25.7
60°-70°	373.9	30.2
70°-80°	135.0	10.9
80°-90°	18.1	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°	1239.2	100.0
0°-180°	1239.2	100.0

Coefficient of Utilization



REPORT NUMBER: P177361

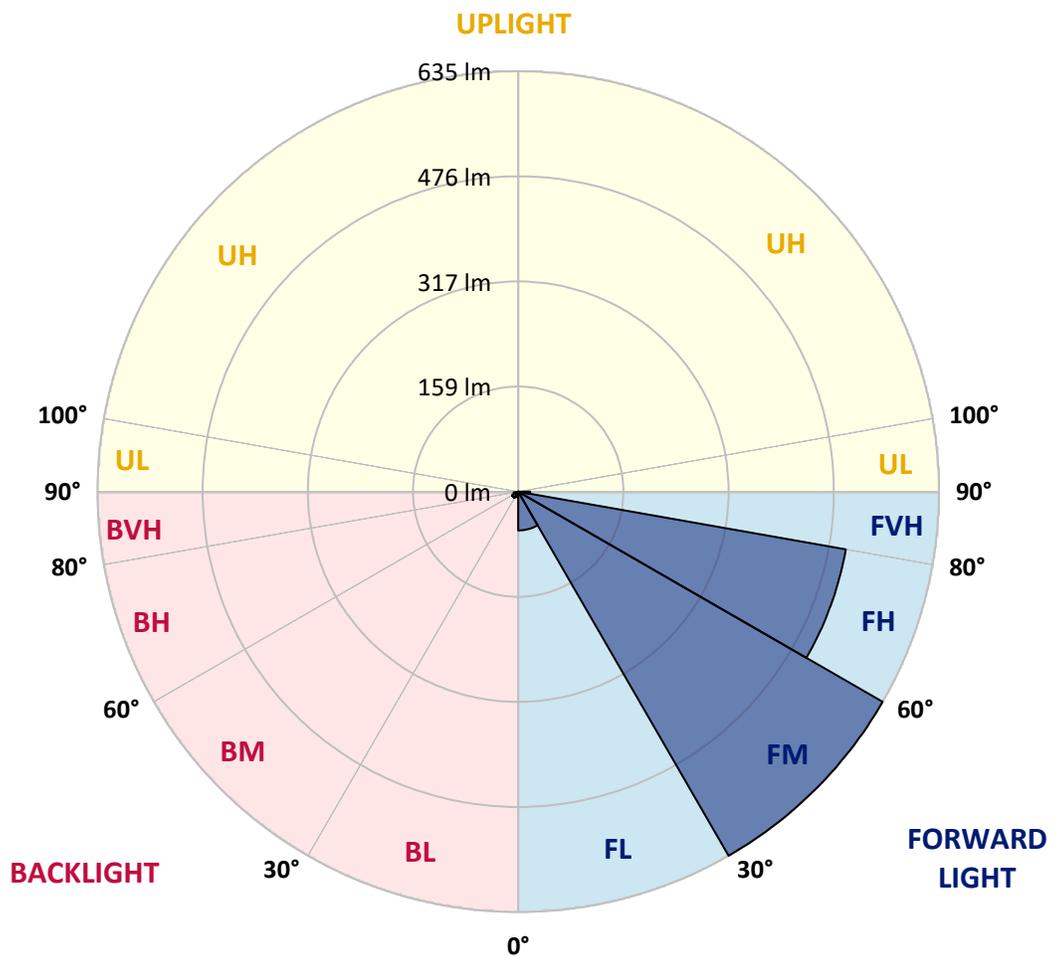
CATALOG NUMBER: VAL-F01-LED-E-U-GL2-HSS-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	58.6	4.7			
FM (30°-60°)	634.6	51.2			
FH (60°-80°)	501.7	40.5			G0/660
FVH (80°-90°)	18.0	1.5			G1/100
BL (0°-30°)	8.5	0.7	B0/110		
BM (30°-60°)	10.6	0.9	B0/220		
BH (60°-80°)	7.2	0.6	B0/110		G0/110
BVH (80°-90°)	0.0	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: P177361

CATALOG NUMBER: VAL-F01-LED-E-U-GL2-HSS-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
2.5°	62.2	62.8	62.4	61.3	59.9	58.1	56.5	56.5	56.3	55.6	55.9
5°	81.5	81.8	80.9	78.2	75.7	71.9	67.6	67.1	66.7	66.0	65.8
7.5°	100.5	101.4	100.5	97.5	92.6	86.7	80.0	79.3	78.0	78.0	77.0
10°	119.9	119.9	118.9	115.6	111.1	102.7	94.2	93.0	91.5	91.0	89.7
12.5°	133.6	133.6	133.1	131.3	127.7	120.3	109.9	108.8	106.8	106.1	104.5
15°	139.0	139.0	139.2	140.8	141.0	137.6	126.8	125.9	123.9	122.1	121.4
17.5°	142.4	142.1	142.1	144.4	148.5	150.7	143.7	142.8	140.6	139.7	137.4
20°	149.8	149.4	148.0	148.0	151.8	159.7	159.7	159.5	157.0	156.3	155.2
22.5°	160.8	160.4	156.3	153.0	154.8	164.7	173.9	173.5	172.6	171.7	171.0
25°	178.9	177.3	170.3	160.4	158.8	169.4	184.7	185.8	186.5	186.5	187.0
27.5°	206.1	204.1	191.7	173.2	166.3	177.1	196.7	198.9	201.0	201.4	203.4
30°	244.0	240.4	222.6	195.5	179.5	188.3	214.2	216.7	219.6	220.5	223.7
32.5°	306.1	304.1	287.0	246.4	212.2	210.4	238.8	241.9	245.8	247.4	251.2
35°	400.8	401.2	387.2	350.8	303.4	278.7	282.7	285.4	286.8	291.5	293.5
37.5°	465.0	466.1	469.3	454.8	421.0	395.8	364.0	367.0	360.0	360.7	360.9
40°	500.1	503.7	522.2	536.2	533.4	518.8	493.4	494.9	481.9	478.9	464.7
42.5°	523.5	528.3	557.8	601.0	623.1	636.4	630.5	629.9	619.7	615.9	604.0
45°	538.2	542.5	579.6	643.4	694.3	733.0	749.0	750.8	742.3	738.5	728.5
47.5°	537.5	542.5	582.3	659.2	734.2	796.1	841.2	843.4	848.6	845.2	845.9
50°	507.8	512.5	552.6	632.3	722.5	825.0	907.4	914.6	923.0	928.6	931.3
52.5°	471.7	475.1	510.7	586.4	672.4	813.0	946.6	959.0	971.4	982.0	989.4
55°	458.4	462.3	490.2	553.1	632.3	763.0	964.9	983.1	1000.7	1018.0	1032.2
57.5°	465.4	469.0	489.1	537.3	608.5	710.3	970.0	998.4	1027.3	1055.4	1083.4
60°	491.1	494.9	512.0	551.9	602.2	679.9	949.8	996.8	1044.8	1093.9	1140.1
62.5°	481.0	482.5	507.8	577.6	647.2	654.0	876.1	941.9	1015.1	1090.8	1165.3
63°	471.3	473.1	498.8	570.6	661.0	650.2	853.3	922.7	1000.0	1081.5	1162.6
65°	427.3	427.6	447.2	503.9	645.6	656.9	752.0	818.2	907.0	1004.7	1107.2
67.5°	319.0	317.4	336.3	379.6	506.9	657.1	645.4	682.6	744.3	831.0	923.0
70°	113.1	110.6	141.2	201.2	315.8	537.5	554.6	557.1	574.2	621.1	678.8
72.5°	36.7	37.4	45.1	73.7	145.5	361.8	502.1	494.5	490.0	489.7	497.4
75°	14.6	14.9	18.0	32.7	65.3	174.4	439.7	444.0	445.6	447.8	450.3
77.5°	7.0	7.7	10.1	18.2	32.4	86.3	314.7	351.0	371.7	387.7	397.4
80°	2.5	2.9	5.6	11.3	15.1	39.6	165.8	200.0	230.5	269.7	303.4
82.5°	0.0	0.0	1.1	7.9	8.3	16.0	68.0	79.7	91.2	118.3	151.8
85°	0.0	0.0	0.0	2.3	2.5	2.7	23.0	27.7	31.1	36.3	41.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7	1.4	3.4	5.2
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: P177361

CATALOG NUMBER: VAL-F01-LED-E-U-GL2-HSS-8030

CANDELA DISTRIBUTION (continued):

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
2.5°	55.4	55.2	55.2	54.7	54.5	54.1	53.8	53.2	52.9	52.9	52.9
5°	65.5	64.7	64.2	63.1	62.4	62.2	61.0	60.6	59.9	60.1	59.0
7.5°	76.8	75.2	74.6	73.0	72.5	71.0	70.5	69.4	68.7	67.4	66.9
10°	89.2	87.2	86.1	83.6	82.9	81.8	80.4	79.1	78.0	76.6	75.9
12.5°	103.4	101.6	100.7	97.3	95.7	94.2	92.4	90.6	88.8	87.6	86.1
15°	120.1	117.1	116.2	113.1	110.4	108.4	105.9	103.6	102.3	100.0	98.4
17.5°	136.5	133.6	132.9	128.2	125.3	123.9	121.2	118.3	115.8	113.5	111.1
20°	153.0	150.9	149.1	144.6	141.5	139.2	135.6	132.7	130.7	127.5	124.4
22.5°	169.4	167.4	166.0	161.3	158.4	155.2	152.1	148.9	146.0	142.1	138.5
25°	186.3	185.0	184.3	180.0	177.3	174.4	171.2	167.6	164.0	159.7	155.9
27.5°	203.9	204.3	203.0	202.1	199.1	197.1	192.2	189.7	187.0	181.8	177.1
30°	226.2	227.5	227.1	227.7	226.0	224.6	220.8	217.6	214.5	209.5	204.1
32.5°	254.3	256.1	257.0	259.5	258.6	258.2	257.0	252.5	250.3	241.7	239.5
35°	297.8	296.9	300.7	302.8	301.9	301.4	300.1	297.6	294.9	288.8	283.2
37.5°	354.4	355.3	356.6	352.6	349.9	349.6	345.6	343.1	339.3	332.5	325.8
40°	458.0	452.3	446.1	428.9	421.5	417.2	405.3	401.9	395.4	386.1	379.1
42.5°	592.7	587.1	568.1	539.5	524.2	503.0	493.4	481.4	472.2	457.1	449.0
45°	726.5	710.3	708.0	674.7	655.8	627.8	610.5	590.4	569.5	549.7	535.3
47.5°	839.4	835.8	824.7	804.5	786.9	763.5	741.2	710.3	688.7	660.5	634.6
50°	929.7	929.5	925.4	913.7	899.1	880.2	860.6	834.4	809.9	775.4	747.7
52.5°	997.3	1000.9	1002.3	998.6	993.0	976.3	966.4	944.6	923.9	894.6	864.6
55°	1046.9	1060.2	1066.9	1074.6	1073.0	1067.1	1066.7	1052.5	1043.0	1019.8	998.6
57.5°	1108.1	1130.0	1150.9	1188.1	1189.5	1202.5	1209.3	1216.0	1217.8	1208.6	1201.6
60°	1186.1	1230.7	1270.3	1348.0	1368.3	1400.3	1421.0	1443.6	1462.7	1464.3	1463.8
62.5°	1241.0	1309.8	1373.7	1489.1	1528.5	1565.4	1593.1	1615.0	1628.3	1641.8	1648.1
63°	1242.6	1317.9	1385.9	1504.8	1546.3	1581.4	1607.8	1628.1	1642.0	1650.1	1654.2
65°	1204.5	1295.8	1376.9	1495.4	1534.4	1569.7	1583.5	1596.8	1603.5	1606.7	1594.7
67.5°	1021.0	1110.2	1204.8	1337.2	1370.6	1412.9	1424.2	1431.0	1434.1	1433.4	1423.3
70°	763.5	838.3	943.4	1094.8	1139.0	1180.4	1206.1	1217.2	1220.8	1219.6	1204.5
72.5°	533.0	576.9	663.7	832.2	892.3	945.5	977.2	993.7	997.1	990.3	976.3
75°	447.6	449.9	469.5	561.6	617.9	674.7	710.5	720.9	714.1	693.6	658.0
77.5°	399.6	404.6	404.6	418.3	429.4	445.1	448.5	423.3	394.0	356.2	325.5
80°	335.2	352.6	364.7	374.9	376.0	372.8	364.5	350.3	327.8	298.9	266.9
82.5°	203.7	237.9	251.9	304.1	329.8	347.2	345.8	326.9	309.8	279.8	252.5
85°	51.4	55.4	60.1	78.2	87.6	107.0	119.2	124.8	126.8	116.5	105.4
87.5°	5.0	3.4	5.6	4.3	6.1	4.5	6.1	5.6	7.0	7.4	8.1
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: P177361

CATALOG NUMBER: VAL-F01-LED-E-U-GL2-HSS-8030

CANDELA DISTRIBUTION (continued):

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
2.5°	52.5	52.3	52.0	51.8	51.6	51.4	50.9	50.9	50.5	50.2	50.0
5°	58.3	57.9	57.7	57.2	56.5	56.1	55.4	54.5	53.8	53.6	53.2
7.5°	65.8	64.7	64.2	63.5	62.6	61.3	60.4	59.7	58.6	57.9	56.5
10°	74.1	73.0	71.6	70.3	68.9	67.4	66.2	65.3	63.5	62.6	61.0
12.5°	84.7	82.7	81.1	79.3	77.5	75.7	74.3	71.6	70.1	68.0	66.7
15°	95.5	93.7	91.9	89.7	87.0	84.0	82.7	80.2	78.2	75.0	73.2
17.5°	108.6	105.2	102.5	99.8	97.3	94.6	91.9	88.1	85.2	82.5	78.8
20°	121.4	117.4	114.4	110.8	107.2	102.9	99.8	97.1	93.0	89.4	85.6
22.5°	135.2	131.1	126.4	122.8	117.8	114.4	110.2	105.7	101.6	96.9	92.1
25°	151.8	147.6	142.1	137.4	131.8	127.1	121.9	116.7	111.7	106.3	100.2
27.5°	172.3	167.8	162.0	156.3	148.9	143.1	138.1	131.1	124.8	118.0	111.1
30°	198.2	193.3	186.1	178.0	170.5	164.0	157.0	147.8	140.8	132.7	123.7
32.5°	232.0	226.2	216.5	208.8	199.6	191.0	181.3	172.1	162.2	151.6	141.2
35°	274.6	269.2	257.9	246.7	236.5	226.4	214.2	203.7	189.7	176.8	163.6
37.5°	318.8	309.1	298.7	286.6	273.9	261.8	246.9	232.3	216.3	202.3	185.6
40°	369.2	357.5	349.0	335.9	318.1	300.7	287.0	268.8	248.7	230.0	210.4
42.5°	438.4	425.3	410.0	390.2	377.3	357.1	339.3	317.6	291.3	270.3	246.7
45°	518.4	500.6	485.7	466.5	451.0	425.8	405.0	376.2	349.9	322.4	293.5
47.5°	609.6	587.5	565.9	547.0	522.2	497.4	471.0	440.4	406.6	376.4	342.2
50°	714.3	683.0	653.1	628.7	594.7	566.1	537.5	503.0	465.6	431.0	392.0
52.5°	830.8	794.5	754.9	717.5	678.1	641.4	606.9	567.2	525.6	483.2	439.7
55°	971.4	944.1	897.5	850.0	797.2	748.1	703.8	654.7	604.0	548.3	502.6
57.5°	1191.5	1178.2	1139.2	1091.7	1023.0	963.3	888.0	827.9	754.5	677.9	618.8
60°	1489.7	1473.3	1451.5	1412.9	1358.4	1277.3	1194.4	1100.9	989.2	883.1	782.4
62.5°	1648.8	1642.9	1625.1	1598.5	1547.6	1483.7	1400.1	1297.4	1171.2	1042.3	913.9
63°	1653.5	1646.1	1630.8	1603.7	1558.9	1497.0	1415.0	1315.2	1191.7	1060.4	929.3
65°	1589.5	1586.6	1571.1	1541.6	1510.9	1463.6	1400.1	1314.3	1210.6	1086.5	956.1
67.5°	1409.8	1401.0	1377.1	1368.1	1346.7	1313.8	1265.4	1206.4	1132.2	1034.7	922.0
70°	1192.4	1179.3	1149.3	1133.4	1107.2	1086.5	1057.0	1014.9	969.1	901.1	817.1
72.5°	961.9	934.9	907.4	865.7	829.2	792.3	759.6	729.9	679.7	652.2	588.4
75°	624.7	575.6	528.5	465.4	408.6	358.4	309.5	284.7	233.2	212.2	182.3
77.5°	296.5	269.0	232.0	203.4	166.9	136.3	111.3	83.6	65.5	51.4	39.2
80°	239.2	216.0	193.7	167.8	140.4	112.0	85.8	64.2	45.5	31.5	22.3
82.5°	213.3	188.1	160.6	142.8	124.1	101.6	83.4	68.0	50.2	36.7	25.0
85°	82.9	69.8	53.8	43.9	34.2	28.2	25.5	17.6	13.7	10.8	8.3
87.5°	7.2	5.9	4.7	3.1	3.4	1.8	2.0	1.4	1.1	1.1	0.9
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: P177361

CATALOG NUMBER: VAL-F01-LED-E-U-GL2-HSS-8030

CANDELA DISTRIBUTION (continued):

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
2.5°	49.8	49.6	49.3	48.9	48.9	48.4	48.2	48.0	46.9	44.4	42.3
5°	52.3	51.8	51.4	50.7	50.2	49.6	49.1	48.4	46.0	41.2	37.2
7.5°	55.9	55.0	54.3	52.9	52.3	51.4	50.7	49.6	45.5	38.3	32.7
10°	60.1	58.6	57.4	55.9	54.5	53.4	52.3	50.7	45.1	35.1	28.6
12.5°	65.3	63.5	61.3	59.5	57.7	56.1	54.5	52.5	44.4	32.4	25.5
15°	70.5	67.8	66.2	63.8	61.3	59.0	56.8	55.0	44.6	29.5	22.8
17.5°	76.4	73.7	70.3	67.6	64.9	62.0	59.3	55.6	43.5	27.3	20.7
20°	82.0	78.2	75.0	71.6	67.8	64.2	60.8	57.7	42.6	25.0	18.9
22.5°	88.1	83.6	79.5	75.2	70.5	66.5	62.4	58.3	41.0	23.0	17.3
25°	95.5	90.3	84.5	79.3	74.3	69.4	64.2	59.3	39.4	21.2	16.2
27.5°	104.5	97.8	91.9	85.4	78.4	72.1	66.5	61.0	37.8	19.8	15.1
30°	116.0	108.1	99.8	91.5	84.0	76.8	68.9	62.2	36.3	18.5	14.0
32.5°	131.3	121.4	111.3	101.6	91.7	82.5	74.1	65.3	35.4	17.3	12.8
35°	151.6	138.8	126.4	114.2	102.3	91.0	80.2	70.3	35.4	16.0	11.5
37.5°	170.8	155.9	140.1	125.0	110.8	97.8	84.9	73.0	33.6	14.9	10.4
40°	191.5	173.7	155.2	137.4	120.3	104.1	89.4	75.7	32.0	13.5	9.2
42.5°	223.2	200.7	176.6	155.9	135.4	115.3	97.1	80.9	30.0	12.2	8.1
45°	264.9	236.3	207.9	182.7	156.6	132.0	110.4	90.3	29.5	11.0	7.0
47.5°	309.5	275.7	242.4	210.2	179.5	150.9	125.0	100.9	29.5	9.9	6.1
50°	353.9	311.6	276.0	238.6	204.1	170.3	139.4	112.0	29.7	9.0	5.0
52.5°	394.0	348.7	308.8	265.6	227.5	188.3	154.8	122.8	29.3	7.9	4.1
55°	449.6	396.5	350.3	302.6	257.9	213.8	175.7	139.0	29.5	7.0	3.4
57.5°	552.1	489.7	434.1	371.5	320.1	263.1	216.9	172.3	32.2	5.9	2.5
60°	699.3	618.2	540.0	463.6	398.3	330.5	270.6	218.1	37.8	4.7	1.8
62.5°	798.2	692.0	598.8	514.5	438.6	367.7	302.3	242.6	41.7	3.8	1.1
63°	808.3	698.6	604.9	517.9	440.4	369.5	303.7	244.4	41.9	3.6	1.1
65°	827.4	709.8	608.3	518.6	438.6	367.0	302.8	244.2	42.3	2.9	0.9
67.5°	805.6	692.5	588.6	499.2	422.8	352.3	291.5	235.2	42.1	2.0	0.7
70°	720.4	626.7	535.5	452.1	382.7	319.0	265.4	214.5	38.8	1.4	0.4
72.5°	528.9	465.2	394.5	334.3	288.4	239.5	204.3	161.1	30.0	0.9	0.2
75°	156.8	142.8	120.1	105.9	93.5	77.3	68.7	53.6	15.3	0.4	0.0
77.5°	31.3	28.4	25.5	23.2	21.8	18.7	17.8	14.6	6.3	0.2	0.0
80°	16.4	13.5	11.5	10.1	8.8	7.2	6.1	5.0	1.1	0.0	0.0
82.5°	15.8	10.6	7.7	6.3	5.4	4.3	3.4	2.5	0.7	0.0	0.0
85°	5.9	4.5	3.4	2.7	2.3	2.0	1.6	1.4	0.0	0.0	0.0
87.5°	0.9	0.7	0.7	0.4	0.4	0.2	0.2	0.2	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: P177361

CATALOG NUMBER: VAL-F01-LED-E-U-GL2-HSS-8030

CANDELA DISTRIBUTION (continued):

	125°	135°	145°	155°	165°	175°	180°
0°	47.5	47.5	47.5	47.5	47.5	47.5	47.5
2.5°	40.3	38.5	37.6	36.5	36.5	36.3	36.7
5°	33.6	31.1	29.3	27.9	28.2	27.5	27.7
7.5°	28.4	25.9	24.3	23.4	23.2	23.0	23.0
10°	24.6	22.3	20.9	20.3	20.1	20.1	20.1
12.5°	21.8	19.6	18.5	18.0	18.0	17.8	17.8
15°	19.6	17.8	16.7	16.2	16.2	16.0	16.2
17.5°	17.8	16.0	15.1	14.6	14.6	14.4	14.4
20°	16.2	14.6	13.7	13.1	13.1	12.8	13.1
22.5°	14.9	13.3	12.2	11.7	11.5	11.3	11.5
25°	13.5	11.9	10.8	10.1	9.9	9.9	9.7
27.5°	12.4	10.8	9.5	8.8	8.6	8.6	8.3
30°	11.3	9.5	8.1	7.4	7.2	7.2	7.2
32.5°	10.1	8.1	7.0	6.3	6.1	6.1	6.1
35°	9.0	7.0	5.9	5.2	5.0	5.0	5.0
37.5°	7.7	5.9	4.5	4.1	3.8	3.6	3.6
40°	6.5	4.5	3.4	2.9	2.5	2.5	2.5
42.5°	5.4	3.6	2.5	1.8	1.6	1.4	1.6
45°	4.5	2.7	1.6	0.9	0.7	0.7	0.7
47.5°	3.6	1.8	0.7	0.2	0.2	0.2	0.2
50°	2.7	1.1	0.2	0.0	0.0	0.2	0.2
52.5°	2.0	0.7	0.0	0.0	0.0	0.0	0.0
55°	1.1	0.2	0.0	0.0	0.0	0.0	0.0
57.5°	0.7	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.4	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.2	0.0	0.0	0.0	0.0	0.0	0.0
63°	0.2	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.2	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)