

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: P177433

Luminaire Tested: **VAL-F04-LED-E-U-GL2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P177433
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33701)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VAL-F04-LED-E-U-GL2
Description: VALET TUNNEL LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE II W/ GLARE CONTROL
Light Source: (28) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9668.5 lumens
Efficiency: N/A
Efficacy: 94.6 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1' x H: 0.1')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 102.2
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

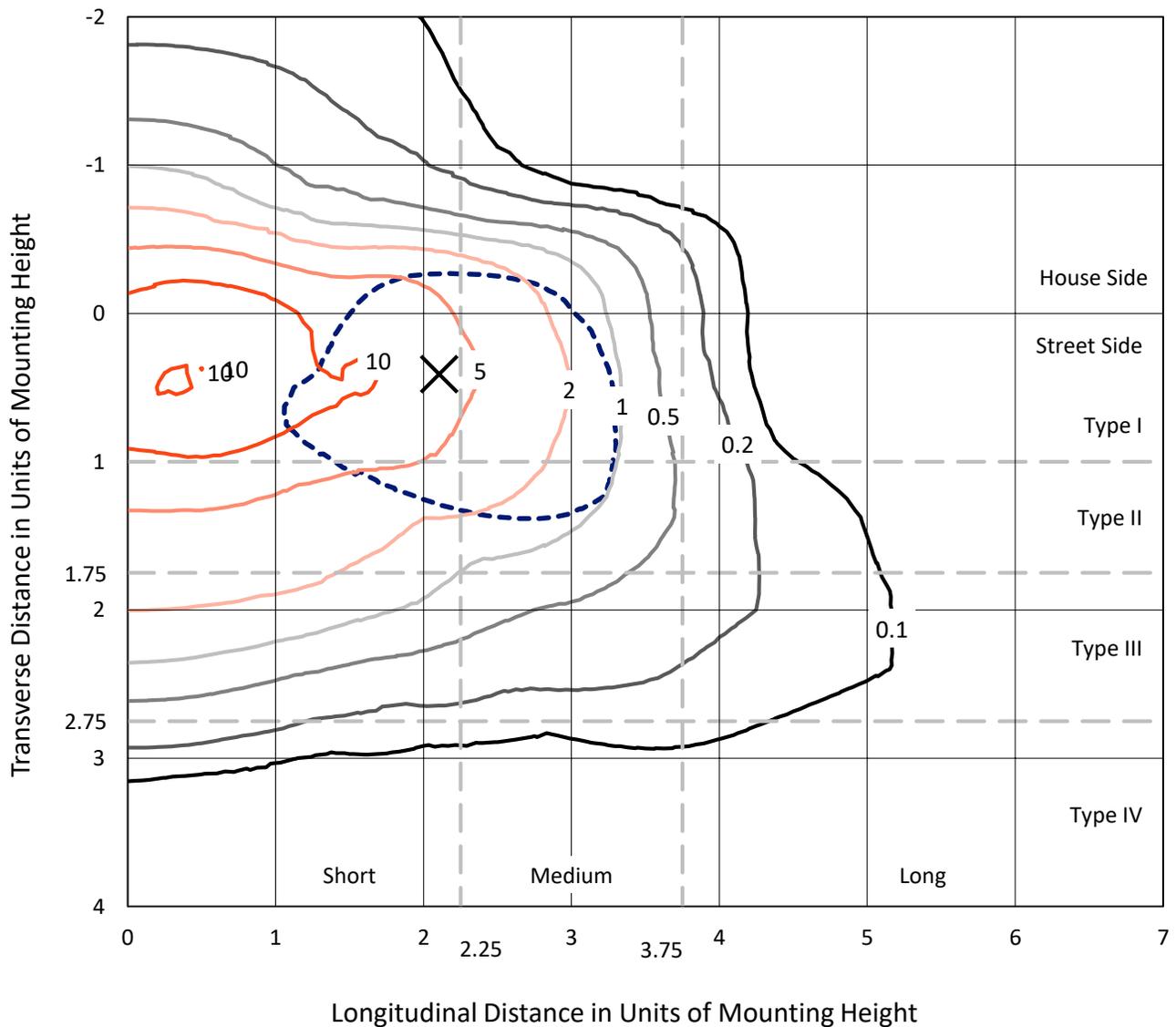


REPORT NUMBER: P177433

CATALOG NUMBER: VAL-F04-LED-E-U-GL2

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

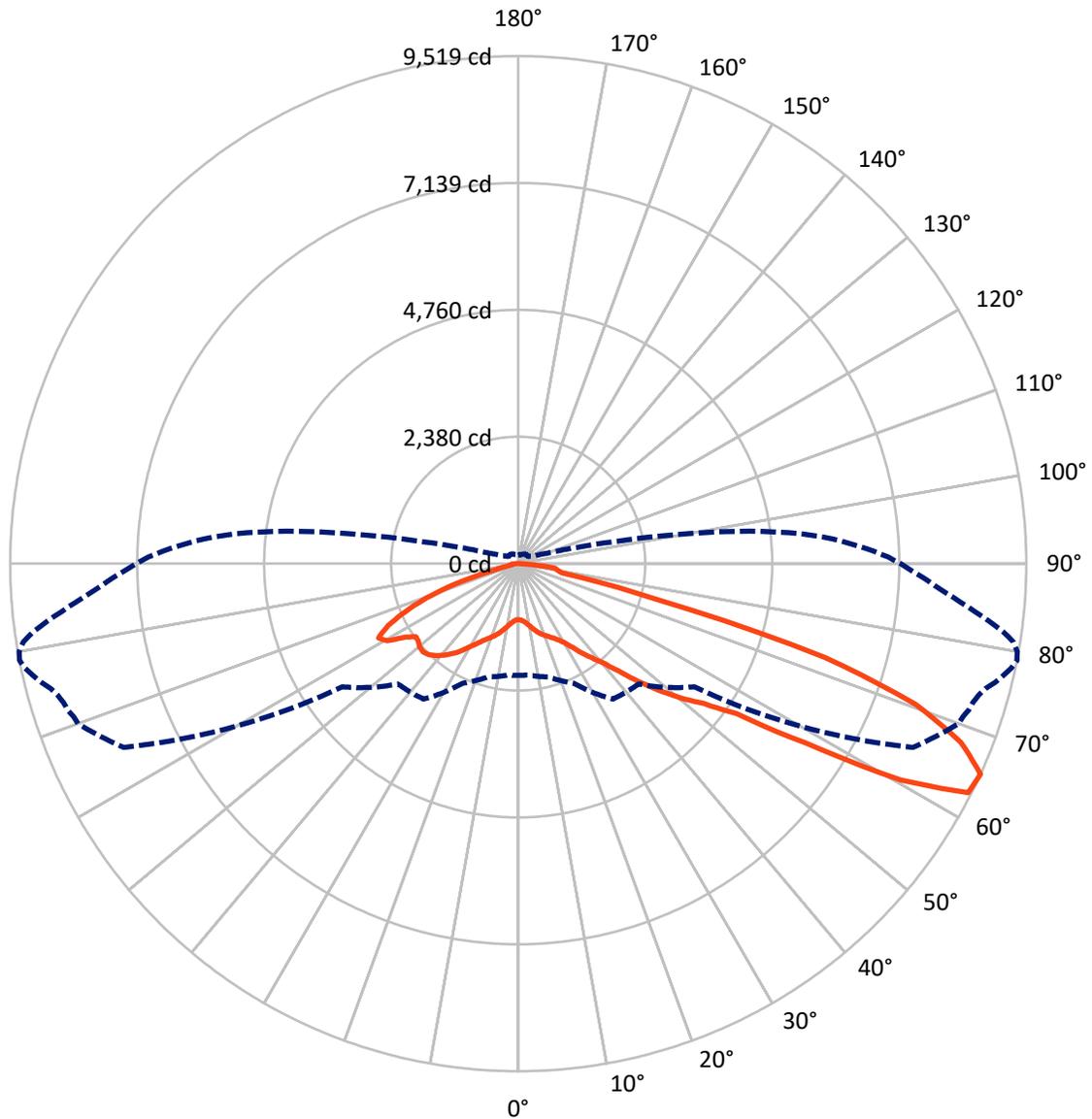


Based on 10 foot mounting height. Maximum calculated value = 13.5 fc
 Type II - Short - Non-Cutoff

REPORT NUMBER: P177433

CATALOG NUMBER: VAL-F04-LED-E-U-GL2

Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical



REPORT NUMBER: P177433

CATALOG NUMBER: VAL-F04-LED-E-U-GL2

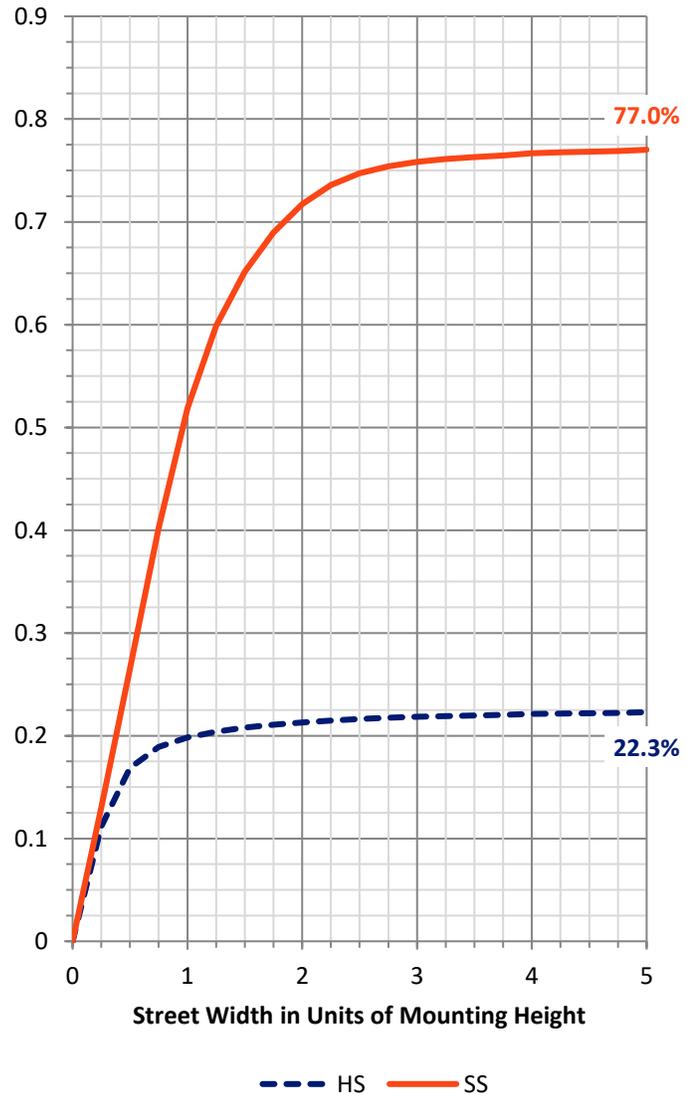
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2194.6	0.0	2194.6
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	7473.9	0.0	7473.9
	% Fixture	77.3	0.0	77.3
Total	Lumens	9668.5	0.0	9668.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.3	1.1
10°-20°	339.5	3.5
20°-30°	585.3	6.1
30°-40°	954.5	9.9
40°-50°	1593.4	16.5
50°-60°	2154.6	22.3
60°-70°	2676.7	27.7
70°-80°	1071.8	11.1
80°-90°	188.3	1.9
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°	9668.5	100.0
0°-180°	9668.5	100.0



REPORT NUMBER: P177433

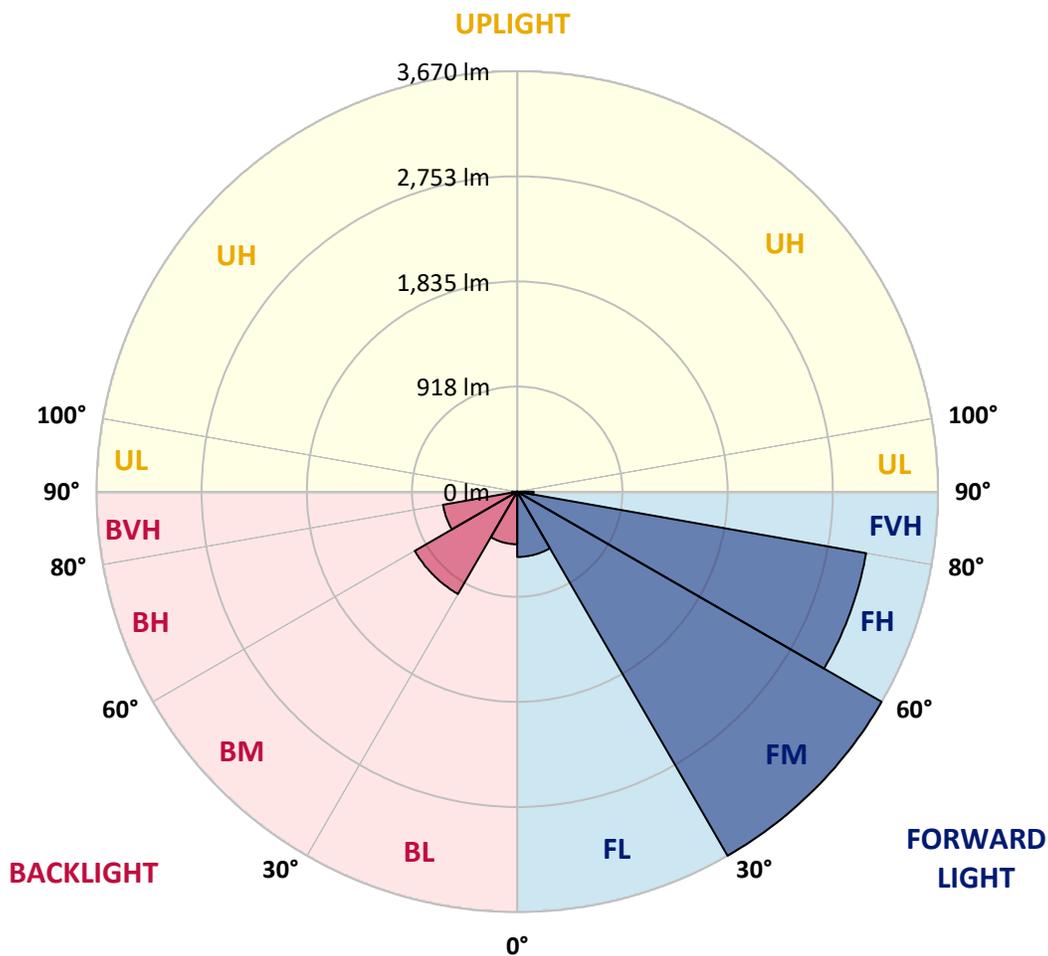
CATALOG NUMBER: VAL-F04-LED-E-U-GL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	570.1	5.9			
FM (30°-60°)	3670.3	38.0			
FH (60°-80°)	3090.6	32.0			G2/5000
FVH (80°-90°)	142.8	1.5			G2/225
BL (0°-30°)	459.0	4.7	B1/500		
BM (30°-60°)	1032.2	10.7	B2/2500		
BH (60°-80°)	657.9	6.8	B2/1000		G2/1000
BVH (80°-90°)	45.5	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: P177433

CATALOG NUMBER: VAL-F04-LED-E-U-GL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	71°	72°
0°	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7
2.5°	1058.7	1058.0	1061.3	1063.9	1063.9	1065.3	1064.6	1060.6	1061.3	1062.6	1061.3
5°	1070.5	1067.9	1071.2	1075.2	1077.8	1081.1	1084.4	1085.1	1087.7	1087.7	1087.1
7.5°	1096.3	1094.3	1098.9	1100.3	1106.2	1111.5	1118.1	1122.7	1125.4	1126.7	1128.7
10°	1140.5	1139.2	1140.5	1143.2	1145.8	1151.8	1163.0	1172.9	1178.8	1178.8	1181.5
12.5°	1194.0	1188.8	1190.1	1184.8	1186.1	1198.7	1211.9	1228.4	1238.3	1239.6	1240.9
15°	1235.6	1233.0	1231.0	1223.8	1229.0	1245.6	1266.0	1289.8	1298.4	1305.7	1305.0
17.5°	1274.6	1271.3	1266.7	1256.8	1262.1	1288.5	1319.5	1345.9	1360.5	1361.8	1363.1
20°	1320.8	1316.9	1308.3	1287.8	1286.5	1323.5	1365.1	1393.5	1406.7	1412.6	1414.6
22.5°	1379.6	1374.3	1358.5	1318.9	1308.3	1351.9	1401.4	1436.4	1450.3	1456.2	1459.5
25°	1454.9	1444.3	1419.2	1357.2	1335.4	1380.9	1440.4	1482.6	1501.8	1507.7	1511.7
27.5°	1522.9	1515.0	1484.6	1411.3	1373.7	1419.9	1487.9	1542.1	1568.5	1575.8	1581.7
30°	1602.2	1591.0	1566.5	1488.6	1438.4	1479.3	1565.9	1634.5	1666.9	1667.6	1680.8
32.5°	1788.4	1781.2	1758.7	1672.8	1588.3	1591.0	1671.5	1766.0	1798.3	1803.6	1815.5
35°	2064.5	2061.8	2061.2	2013.6	1950.9	1886.2	1892.1	1964.1	1985.9	1994.5	1998.4
37.5°	2246.1	2269.2	2325.3	2359.7	2343.8	2357.7	2285.1	2197.2	2184.7	2175.4	2179.4
40°	2402.6	2423.1	2536.7	2695.2	2791.6	2859.6	2795.6	2526.1	2425.7	2396.7	2385.4
42.5°	2495.1	2518.2	2680.6	2934.2	3179.9	3341.1	3358.2	2983.8	2728.9	2725.6	2683.3
45°	2545.3	2568.4	2762.5	3104.0	3451.4	3741.9	3892.5	3547.1	3172.7	3144.9	3086.1
47.5°	2535.4	2557.1	2759.2	3166.7	3611.8	4008.1	4309.2	4116.4	3684.5	3617.8	3536.5
50°	2414.5	2430.3	2642.3	3064.3	3568.9	4119.0	4594.5	4638.8	4263.7	4173.2	4051.7
52.5°	2289.7	2318.1	2493.7	2882.7	3374.1	4050.4	4764.9	5114.3	4804.6	4742.5	4586.6
55°	2222.3	2244.8	2388.1	2720.3	3168.7	3815.9	4835.6	5562.7	5461.7	5436.6	5326.3
57.5°	2219.7	2241.5	2355.7	2621.9	3001.6	3571.6	4856.1	6255.5	6552.0	6558.6	6526.9
60°	2328.0	2350.4	2446.2	2669.4	2950.1	3362.2	4782.8	7238.2	7893.3	7951.5	8048.5
62.5°	2343.2	2353.7	2469.3	2770.5	3137.7	3205.7	4480.9	8056.5	8815.3	8868.8	8922.3
65°	2096.2	2095.5	2197.9	2475.3	3098.7	3189.8	4027.2	8156.8	8778.3	8810.7	8877.4
67.5°	1563.2	1550.0	1608.1	1861.7	2458.7	3193.8	3489.7	7399.3	8094.1	8155.5	8178.0
70°	805.7	826.2	865.8	1021.0	1561.2	2571.0	2997.6	6242.9	7105.5	7128.6	7208.5
72.5°	330.9	322.3	349.4	429.3	781.3	1699.3	2479.9	4926.7	5868.5	5852.6	5867.2
75°	184.3	186.9	194.8	223.9	379.7	853.3	2130.5	3487.7	3990.9	3717.5	3635.0
77.5°	147.9	149.3	149.9	155.2	207.4	455.0	1635.2	2296.9	2007.0	1863.7	1808.9
80°	108.3	115.6	123.5	124.8	142.7	258.2	896.9	1933.7	1694.0	1575.1	1477.4
82.5°	87.2	90.5	107.6	110.3	113.6	153.9	406.2	1816.2	1687.4	1565.9	1431.1
85°	52.2	58.1	87.8	88.5	89.8	93.8	224.5	739.7	920.0	813.0	744.3
87.5°	18.5	23.8	43.6	36.3	46.2	38.3	98.4	247.7	305.1	289.9	256.9
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: P177433

CATALOG NUMBER: VAL-F04-LED-E-U-GL2

CANDELA DISTRIBUTION (continued):

	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°	83°
0°	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7
2.5°	1060.6	1060.6	1062.0	1061.3	1061.3	1061.3	1061.3	1060.0	1060.0	1058.0	1059.3
5°	1087.1	1086.4	1087.1	1087.7	1087.1	1088.4	1087.7	1087.1	1087.7	1087.1	1087.7
7.5°	1129.3	1126.0	1130.6	1128.0	1127.3	1131.3	1129.3	1131.3	1132.0	1131.3	1130.6
10°	1182.8	1184.8	1184.8	1184.8	1183.5	1187.4	1188.1	1189.4	1190.1	1192.7	1192.7
12.5°	1244.2	1244.9	1247.5	1246.9	1248.2	1252.8	1256.1	1256.8	1257.4	1259.4	1256.8
15°	1310.3	1311.6	1311.6	1317.5	1315.6	1322.2	1324.1	1324.1	1324.8	1332.7	1333.4
17.5°	1369.1	1369.1	1374.3	1374.3	1379.6	1380.9	1386.9	1387.5	1390.2	1397.4	1398.1
20°	1418.6	1421.2	1424.5	1428.5	1430.5	1434.4	1438.4	1442.4	1445.7	1451.6	1452.3
22.5°	1465.5	1468.1	1473.4	1476.0	1480.7	1483.3	1486.6	1491.2	1496.5	1504.4	1506.4
25°	1519.6	1522.3	1528.2	1532.2	1537.5	1541.4	1547.4	1553.3	1556.6	1564.5	1570.5
27.5°	1588.3	1596.2	1604.2	1606.1	1610.1	1619.3	1627.3	1635.2	1642.5	1646.4	1653.7
30°	1688.7	1688.7	1705.2	1705.2	1712.5	1721.1	1726.3	1734.9	1748.1	1752.1	1761.3
32.5°	1823.4	1826.7	1832.7	1850.5	1863.7	1867.7	1871.6	1884.2	1892.1	1902.0	1913.2
35°	2015.6	2018.9	2022.2	2039.4	2054.6	2058.5	2062.5	2070.4	2083.6	2100.8	2095.5
37.5°	2188.0	2190.0	2200.5	2219.7	2228.3	2238.8	2242.1	2256.7	2263.9	2279.8	2280.4
40°	2395.3	2390.7	2396.7	2418.5	2431.7	2431.0	2441.6	2468.0	2473.3	2480.5	2499.0
42.5°	2684.6	2667.4	2685.9	2693.2	2713.0	2725.6	2746.7	2764.5	2777.1	2804.8	2818.0
45°	3058.4	3040.6	3055.8	3059.1	3100.0	3112.6	3144.3	3168.0	3195.1	3226.8	3236.1
47.5°	3484.4	3451.4	3432.9	3453.3	3502.2	3522.7	3553.7	3576.2	3604.6	3621.1	3615.8
50°	3977.7	3898.5	3861.5	3850.9	3885.9	3915.0	3963.2	3973.7	3987.0	3986.3	3987.0
52.5°	4527.8	4445.3	4368.0	4314.5	4309.2	4348.2	4360.1	4362.7	4358.8	4329.1	4310.6
55°	5246.4	5240.4	5159.2	5048.3	5041.0	5036.4	4967.0	4958.4	4942.6	4897.0	4834.3
57.5°	6550.0	6616.1	6562.6	6560.0	6501.8	6463.5	6336.1	6272.7	6206.0	6082.5	5984.1
60°	8057.1	8152.9	8205.7	8228.8	8342.4	8342.4	8238.1	8148.3	8040.0	7851.7	7668.1
62.5°	8964.5	9048.4	9126.3	9248.5	9393.2	9457.2	9462.5	9382.6	9245.9	9031.2	8771.7
65°	8907.1	8969.2	9063.6	9207.6	9327.1	9442.0	9519.3	9494.9	9390.5	9175.9	8893.2
67.5°	8256.6	8347.0	8469.2	8602.0	8712.9	8821.2	8946.0	8955.3	8927.6	8723.5	8467.9
70°	7252.7	7369.0	7446.2	7613.3	7663.5	7773.1	7898.6	7958.7	7913.8	7756.6	7606.7
72.5°	5892.3	5984.1	5997.3	5924.6	5949.7	5976.8	6007.2	5866.5	5812.4	5602.3	5505.9
75°	3572.9	3452.0	3350.3	3249.3	2947.5	2840.5	2676.0	2351.8	2314.8	2092.2	1937.7
77.5°	1699.3	1648.4	1556.6	1402.7	1198.0	1001.9	831.5	675.6	617.5	508.5	433.2
80°	1422.5	1361.8	1279.2	1165.0	1021.7	879.0	744.3	628.7	512.5	417.4	333.5
82.5°	1305.0	1199.3	1083.1	984.7	883.6	786.6	696.1	591.7	530.3	428.0	349.4
85°	659.8	577.9	468.2	394.3	332.9	270.8	234.4	200.1	178.3	142.0	123.5
87.5°	221.2	181.0	134.7	114.3	103.0	88.5	81.2	77.3	75.3	66.7	59.4
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: P177433

CATALOG NUMBER: VAL-F04-LED-E-U-GL2

CANDELA DISTRIBUTION (continued):

	84°	85°	86°	87°	88°	89°	90°	91°	92°	93°	94°
0°	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7
2.5°	1059.3	1059.3	1059.3	1059.3	1058.7	1058.7	1058.7	1058.7	1058.7	1058.7	1059.3
5°	1086.4	1086.4	1087.1	1089.0	1085.1	1086.4	1087.7	1085.7	1087.7	1085.7	1088.4
7.5°	1130.0	1132.0	1130.6	1133.3	1132.0	1135.9	1133.3	1131.3	1132.6	1132.6	1133.3
10°	1191.4	1194.0	1192.1	1193.4	1193.4	1196.0	1192.7	1193.4	1194.0	1192.7	1193.4
12.5°	1259.4	1260.7	1260.1	1264.0	1262.1	1264.0	1262.1	1264.7	1266.0	1267.3	1267.3
15°	1333.4	1334.7	1338.7	1338.0	1342.0	1340.7	1341.3	1338.0	1344.6	1340.7	1342.0
17.5°	1401.4	1400.8	1406.0	1408.0	1408.7	1409.3	1411.3	1408.7	1409.3	1411.3	1410.0
20°	1454.2	1458.9	1460.2	1465.5	1469.4	1470.8	1470.1	1472.1	1474.7	1472.1	1472.1
22.5°	1510.4	1517.0	1519.0	1522.3	1526.2	1526.9	1530.9	1532.8	1534.2	1533.5	1534.2
25°	1577.7	1582.4	1587.0	1593.6	1598.2	1598.9	1602.2	1604.8	1605.5	1604.8	1608.8
27.5°	1660.3	1666.2	1672.2	1680.1	1685.4	1686.7	1694.0	1694.0	1697.9	1699.9	1701.2
30°	1766.6	1768.6	1783.8	1791.7	1789.7	1799.0	1808.9	1808.2	1812.9	1814.2	1817.5
32.5°	1921.2	1921.2	1934.4	1944.3	1954.8	1951.5	1966.7	1964.1	1971.4	1975.3	1973.3
35°	2108.7	2115.3	2125.2	2131.2	2142.4	2148.3	2158.9	2164.9	2168.2	2167.5	2160.2
37.5°	2302.2	2312.8	2316.8	2331.3	2342.5	2352.4	2353.7	2347.1	2349.8	2336.6	2332.6
40°	2523.5	2538.7	2547.9	2569.7	2568.4	2580.9	2582.2	2563.1	2559.8	2542.6	2524.8
42.5°	2832.5	2853.7	2860.9	2877.4	2864.2	2870.2	2837.2	2829.2	2802.8	2775.1	2734.8
45°	3249.3	3238.7	3243.3	3238.7	3203.7	3177.9	3150.9	3111.9	3072.9	3019.4	2962.0
47.5°	3615.8	3621.1	3586.7	3564.9	3508.2	3471.8	3422.3	3354.3	3306.7	3234.7	3158.8
50°	3971.8	3913.0	3864.8	3814.6	3764.4	3697.7	3623.1	3563.0	3493.6	3403.8	3310.7
52.5°	4261.0	4185.1	4127.0	4055.6	3987.6	3913.6	3835.7	3748.5	3657.4	3567.6	3452.7
55°	4773.5	4663.2	4588.6	4463.8	4386.5	4282.8	4222.1	4109.1	3982.3	3863.5	3741.3
57.5°	5873.1	5708.0	5622.8	5552.2	5432.0	5261.6	5153.3	4967.7	4786.7	4659.9	4456.5
60°	7529.4	7361.7	7220.4	7053.3	6869.0	6637.9	6534.9	6316.3	6057.4	5848.0	5579.2
62.5°	8561.7	8329.9	8100.7	7866.3	7681.3	7500.4	7287.1	7066.5	6810.3	6525.6	6231.7
65°	8603.3	8325.3	8051.2	7812.1	7595.5	7360.4	7160.3	6936.4	6666.9	6373.7	6068.6
67.5°	8171.4	7860.3	7566.4	7304.2	7056.6	6838.6	6629.3	6418.6	6130.0	5884.3	5572.0
70°	7310.8	7026.9	6760.7	6462.2	6272.7	6027.7	5823.6	5601.7	5395.0	5165.1	4872.6
72.5°	5369.9	5155.9	4852.1	4725.3	4623.6	4364.1	4212.2	4193.7	4061.6	3786.2	3567.6
75°	1997.1	1699.9	1610.1	1663.6	1574.4	1604.2	1592.9	1529.5	1532.2	1485.3	1429.8
77.5°	391.0	363.2	341.4	347.4	322.9	312.4	334.8	328.2	316.3	319.6	314.4
80°	266.1	225.2	204.1	196.1	186.2	181.6	180.3	178.3	174.4	172.4	166.4
82.5°	262.2	194.8	153.9	132.1	124.2	120.2	116.9	116.2	114.9	114.3	116.2
85°	104.3	84.5	77.3	70.7	68.7	66.7	66.7	66.0	65.4	66.7	69.3
87.5°	50.9	42.9	39.0	35.7	34.3	33.7	33.7	34.3	35.0	37.6	42.9
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: P177433

CATALOG NUMBER: VAL-F04-LED-E-U-GL2

CANDELA DISTRIBUTION (continued):

	95°	96°	97°	98°	99°	100°	101°	102°	103°	104°	105°
0°	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7
2.5°	1058.0	1058.7	1057.3	1058.0	1057.3	1056.0	1055.4	1057.3	1056.7	1056.0	1056.0
5°	1085.1	1087.7	1086.4	1085.1	1085.1	1084.4	1084.4	1084.4	1083.7	1084.4	1082.4
7.5°	1132.0	1131.3	1131.3	1130.0	1128.7	1130.0	1129.3	1127.3	1128.0	1126.7	1124.7
10°	1192.1	1190.1	1193.4	1193.4	1190.7	1190.1	1188.8	1186.8	1186.8	1184.8	1184.8
12.5°	1263.4	1261.4	1266.0	1262.7	1258.8	1258.1	1254.1	1252.8	1254.8	1254.1	1252.8
15°	1336.0	1336.7	1338.7	1338.0	1333.4	1333.4	1328.1	1328.8	1324.8	1323.5	1320.2
17.5°	1406.7	1407.4	1405.4	1405.4	1402.1	1400.1	1394.1	1394.8	1392.2	1386.9	1382.9
20°	1470.1	1469.4	1464.8	1468.8	1462.2	1460.8	1455.6	1450.3	1451.6	1446.3	1438.4
22.5°	1532.2	1530.9	1529.5	1527.6	1524.2	1522.9	1517.0	1516.3	1509.7	1501.8	1495.2
25°	1604.2	1603.5	1601.5	1602.2	1595.6	1596.2	1585.7	1583.0	1579.1	1570.5	1565.2
27.5°	1697.3	1697.3	1692.0	1690.0	1688.0	1685.4	1676.1	1669.5	1659.6	1649.7	1639.2
30°	1811.5	1810.2	1808.9	1803.6	1796.3	1792.4	1775.9	1765.3	1752.1	1733.6	1717.8
32.5°	1974.7	1963.4	1954.2	1942.3	1930.4	1917.9	1892.1	1874.3	1853.1	1823.4	1798.3
35°	2156.3	2137.1	2127.2	2102.8	2080.3	2055.2	2024.2	1987.9	1958.8	1919.8	1878.9
37.5°	2306.2	2291.7	2265.2	2237.5	2205.8	2158.3	2123.3	2084.3	2033.4	1990.5	1941.0
40°	2491.1	2458.1	2420.4	2374.2	2330.6	2277.1	2228.9	2172.8	2110.7	2048.6	1983.9
42.5°	2685.3	2634.4	2572.3	2518.8	2452.8	2382.8	2320.1	2244.1	2164.9	2081.6	1995.1
45°	2883.4	2820.7	2738.1	2662.2	2570.4	2482.5	2392.7	2289.0	2180.7	2069.8	1960.8
47.5°	3065.0	2973.2	2879.4	2777.1	2671.4	2558.5	2431.0	2295.0	2152.3	2006.4	1870.3
50°	3207.7	3092.7	2974.5	2856.3	2726.9	2580.3	2419.8	2242.1	2066.5	1891.4	1734.9
52.5°	3333.8	3205.0	3059.7	2913.1	2753.3	2573.0	2372.2	2162.9	1948.9	1755.4	1579.7
55°	3578.2	3416.4	3224.8	3036.0	2833.9	2606.7	2356.4	2100.1	1853.8	1643.1	1456.2
57.5°	4241.9	4023.3	3726.7	3464.6	3208.3	2877.4	2524.8	2209.1	1895.4	1646.4	1438.4
60°	5287.3	4931.4	4591.9	4192.3	3777.6	3323.9	2851.0	2425.7	2043.3	1731.0	1480.7
62.5°	5893.6	5517.8	5081.3	4597.2	4059.6	3506.8	2964.0	2467.3	2048.0	1707.8	1430.5
65°	5729.8	5352.0	4871.9	4376.6	3804.7	3239.4	2700.5	2223.6	1816.8	1502.5	1237.0
67.5°	5243.7	4848.8	4397.7	3848.3	3301.4	2777.7	2286.4	1837.3	1477.4	1184.1	949.7
70°	4536.4	4185.1	3750.5	3244.0	2713.7	2242.8	1828.7	1423.9	1119.4	850.6	665.7
72.5°	3366.8	3055.8	2784.3	2361.0	1972.7	1603.5	1266.0	990.6	728.4	550.8	424.0
75°	1413.3	1308.3	1264.0	1108.8	964.2	790.5	595.0	474.2	384.4	326.9	259.5
77.5°	342.8	342.8	322.3	301.8	277.4	251.0	221.9	198.1	186.2	175.7	167.1
80°	166.4	165.1	159.8	159.2	154.5	148.6	145.3	140.7	138.7	136.0	134.7
82.5°	116.9	116.2	114.3	116.9	116.2	118.9	120.2	120.9	120.9	121.5	122.2
85°	74.0	76.6	81.9	88.5	94.4	101.7	108.3	113.6	117.6	120.9	123.5
87.5°	46.9	53.5	57.5	67.4	77.3	88.5	101.0	106.3	111.0	111.6	107.6
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: P177433

CATALOG NUMBER: VAL-F04-LED-E-U-GL2

CANDELA DISTRIBUTION (continued):

	106°	107°	108°	109°	110°	115°	125°	135°	145°	155°	165°
0°	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7
2.5°	1056.0	1055.4	1056.7	1055.4	1055.4	1054.7	1052.7	1050.7	1048.7	1048.1	1046.1
5°	1081.8	1081.8	1083.1	1080.4	1081.1	1078.5	1072.5	1065.9	1060.0	1054.7	1048.7
7.5°	1125.4	1123.4	1124.0	1123.4	1122.1	1116.8	1103.6	1087.1	1071.2	1054.7	1041.5
10°	1183.5	1179.5	1179.5	1178.2	1176.2	1168.9	1141.2	1108.2	1075.2	1045.4	1023.7
12.5°	1248.2	1248.9	1243.6	1240.3	1237.0	1221.8	1180.2	1127.3	1075.2	1027.6	992.6
15°	1315.6	1314.9	1309.0	1307.0	1299.7	1277.3	1214.5	1137.2	1062.6	992.6	940.4
17.5°	1376.3	1373.7	1367.7	1363.8	1355.8	1326.1	1237.6	1132.6	1029.6	937.8	872.4
20°	1431.8	1428.5	1423.2	1415.9	1408.0	1365.1	1246.2	1108.8	977.4	872.4	806.4
22.5°	1489.2	1482.0	1476.0	1466.1	1457.5	1400.1	1240.3	1066.6	918.0	799.8	729.1
25°	1553.3	1544.7	1532.2	1520.3	1507.1	1428.5	1223.8	1013.7	846.7	721.2	649.9
27.5°	1622.7	1610.1	1593.6	1578.4	1557.3	1449.6	1195.4	955.0	768.7	643.2	569.3
30°	1696.0	1672.8	1652.4	1629.3	1602.2	1459.5	1154.4	882.3	682.9	564.0	490.0
32.5°	1767.3	1736.2	1705.9	1672.2	1635.2	1455.6	1096.3	796.5	597.0	490.0	428.0
35°	1839.9	1795.0	1752.8	1707.2	1662.3	1435.8	1016.4	701.4	515.8	428.6	383.7
37.5°	1889.5	1833.3	1777.2	1722.4	1668.2	1392.8	910.1	595.0	442.5	384.4	352.0
40°	1914.6	1845.9	1777.2	1709.2	1642.5	1321.5	785.9	498.0	390.3	351.3	328.2
42.5°	1907.3	1822.1	1736.9	1656.3	1574.4	1207.9	651.2	418.0	354.0	325.6	305.1
45°	1847.2	1745.5	1648.4	1563.2	1460.8	1062.0	534.9	368.5	326.2	304.5	285.3
47.5°	1734.3	1620.7	1501.8	1405.4	1309.6	892.9	445.1	337.5	301.8	284.0	264.8
50°	1590.3	1458.9	1340.0	1235.6	1141.9	735.0	383.7	311.1	282.0	266.8	246.3
52.5°	1431.8	1290.5	1182.2	1072.5	980.7	613.5	340.8	282.0	262.8	247.0	230.5
55°	1300.4	1169.6	1059.3	949.0	856.6	536.9	305.1	259.5	245.0	228.5	215.3
57.5°	1265.4	1116.1	995.9	891.6	796.5	490.0	279.4	239.1	229.2	216.6	202.1
60°	1279.9	1115.4	980.7	866.5	766.7	452.4	260.2	225.2	217.3	206.1	190.9
62.5°	1227.7	1054.0	918.0	796.5	702.0	404.8	246.3	218.6	213.3	198.1	181.0
65°	1046.1	886.9	756.2	651.2	569.9	340.8	235.1	224.5	219.3	192.8	174.4
67.5°	796.5	663.7	558.7	480.1	421.3	282.0	232.5	244.4	233.8	195.5	172.4
70°	550.8	450.4	383.0	335.5	298.5	237.8	241.1	266.1	251.0	204.1	183.6
72.5°	349.4	291.9	258.9	241.1	223.2	200.8	239.1	263.5	243.0	205.4	183.6
75°	223.9	200.1	188.9	182.3	177.0	175.0	210.7	216.6	195.5	178.3	171.0
77.5°	158.5	154.5	152.6	151.9	152.6	157.2	174.4	163.1	142.0	142.7	146.6
80°	134.1	134.1	132.7	133.4	134.7	136.7	139.3	120.2	109.0	117.6	130.8
82.5°	122.8	124.8	126.1	127.5	129.4	126.8	118.2	91.1	87.8	114.3	128.1
85°	124.8	124.8	125.5	126.8	127.5	114.3	98.4	68.7	67.4	128.1	120.9
87.5°	107.0	105.7	101.0	97.7	93.1	78.6	65.4	38.3	39.6	79.3	84.5
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: P177433

CATALOG NUMBER: VAL-F04-LED-E-U-GL2

CANDELA DISTRIBUTION (continued):

	175°	180°
0°	1050.7	1050.7
2.5°	1045.4	1045.4
5°	1045.4	1045.4
7.5°	1036.9	1034.2
10°	1011.8	1008.5
12.5°	973.5	970.2
15°	914.7	910.7
17.5°	841.4	834.8
20°	764.8	755.5
22.5°	688.2	680.9
25°	609.6	603.0
27.5°	532.3	525.7
30°	461.0	458.3
32.5°	408.1	405.5
35°	369.2	367.9
37.5°	342.8	341.4
40°	319.6	318.3
42.5°	298.5	296.5
45°	277.4	278.0
47.5°	256.2	255.6
50°	237.8	237.8
52.5°	222.6	221.9
55°	208.7	208.0
57.5°	194.8	194.2
60°	182.9	181.0
62.5°	171.7	170.4
65°	164.4	163.8
67.5°	159.2	157.2
70°	157.8	152.6
72.5°	153.9	147.3
75°	144.6	141.3
77.5°	127.5	123.5
80°	98.4	91.1
82.5°	82.6	71.3
85°	60.8	56.1
87.5°	44.2	35.0
90°	0.0	0.0

(END OF REPORT)