

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: P177428

Luminaire Tested: **VAL-E04-LED-E-U-GL2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P177428
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-E04-LED-E-U-GL2
Description: VALET TUNNEL LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE II W/ GLARE CONTROL
Light Source: (84) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11711.9 lumens
Efficiency: N/A
Efficacy: 120.5 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): 97.2
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



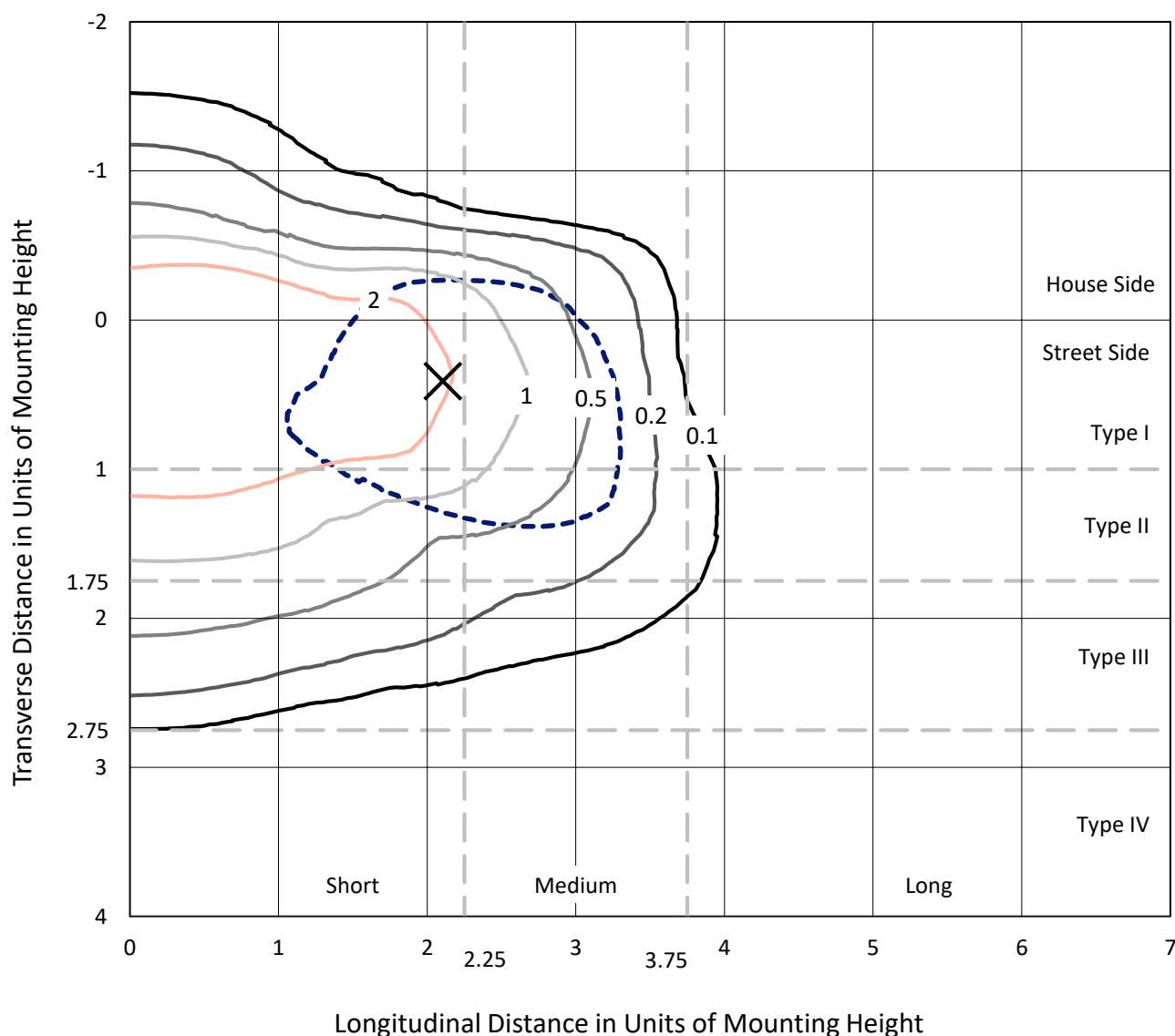
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

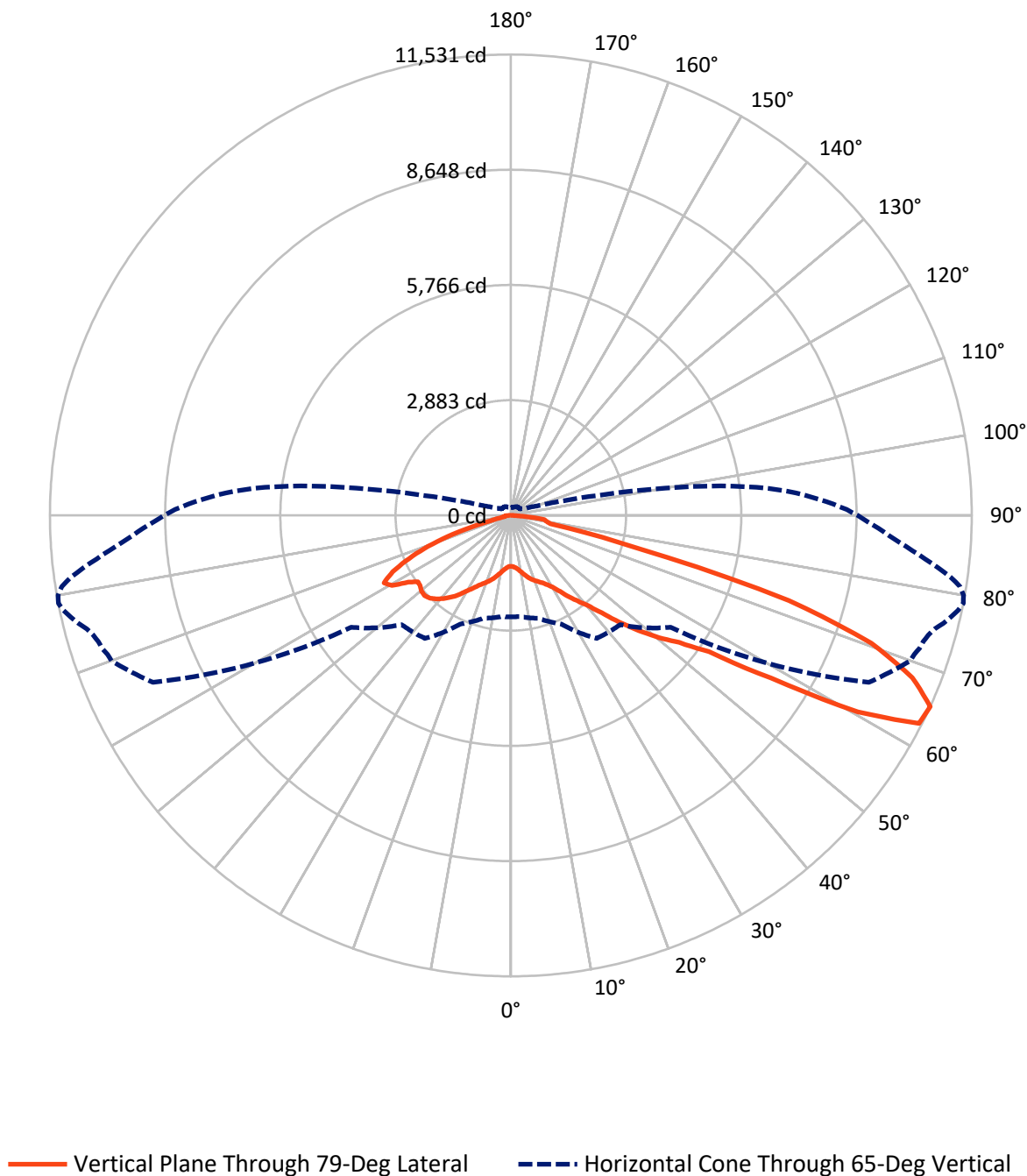


Based on 20 foot mounting height. Maximum calculated value = 4.1 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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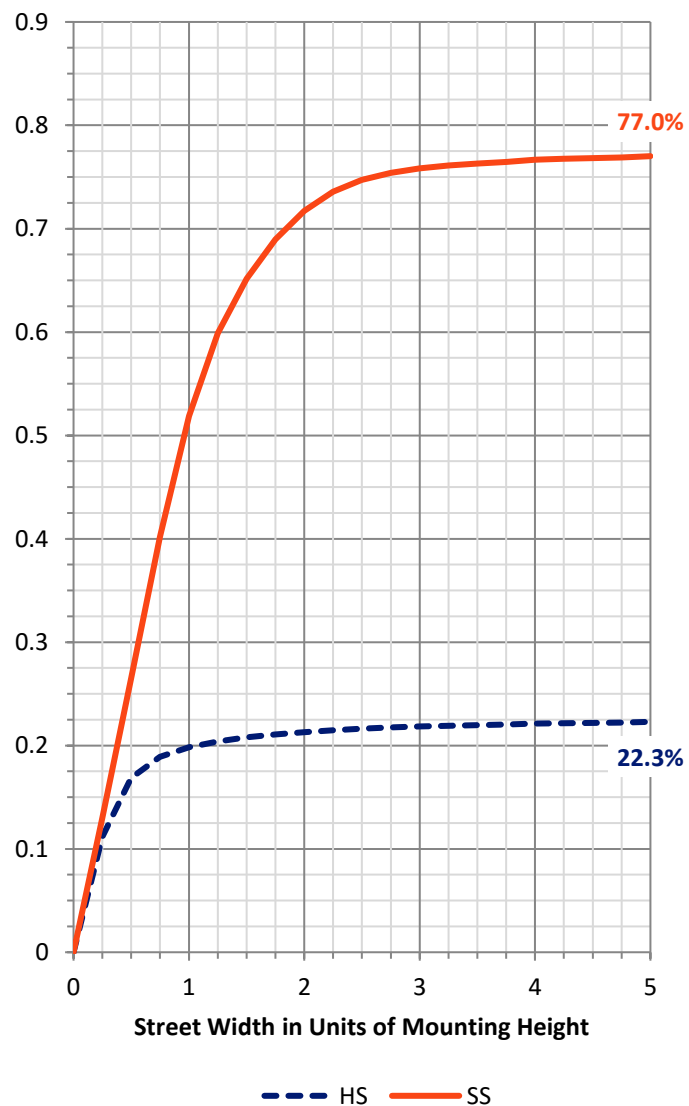
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2658.5	0.0	2658.5
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	9053.5	0.0	9053.5
	% Fixture	77.3	0.0	77.3
Total	Lumens	11711.9	0.0	11711.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.4	1.1
10°-20°	411.3	3.5
20°-30°	709.0	6.1
30°-40°	1156.2	9.9
40°-50°	1930.2	16.5
50°-60°	2610.0	22.3
60°-70°	3242.4	27.7
70°-80°	1298.4	11.1
80°-90°	228.1	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°	11711.9	100.0
0°-180°	11711.9	100.0

Coefficient of Utilization



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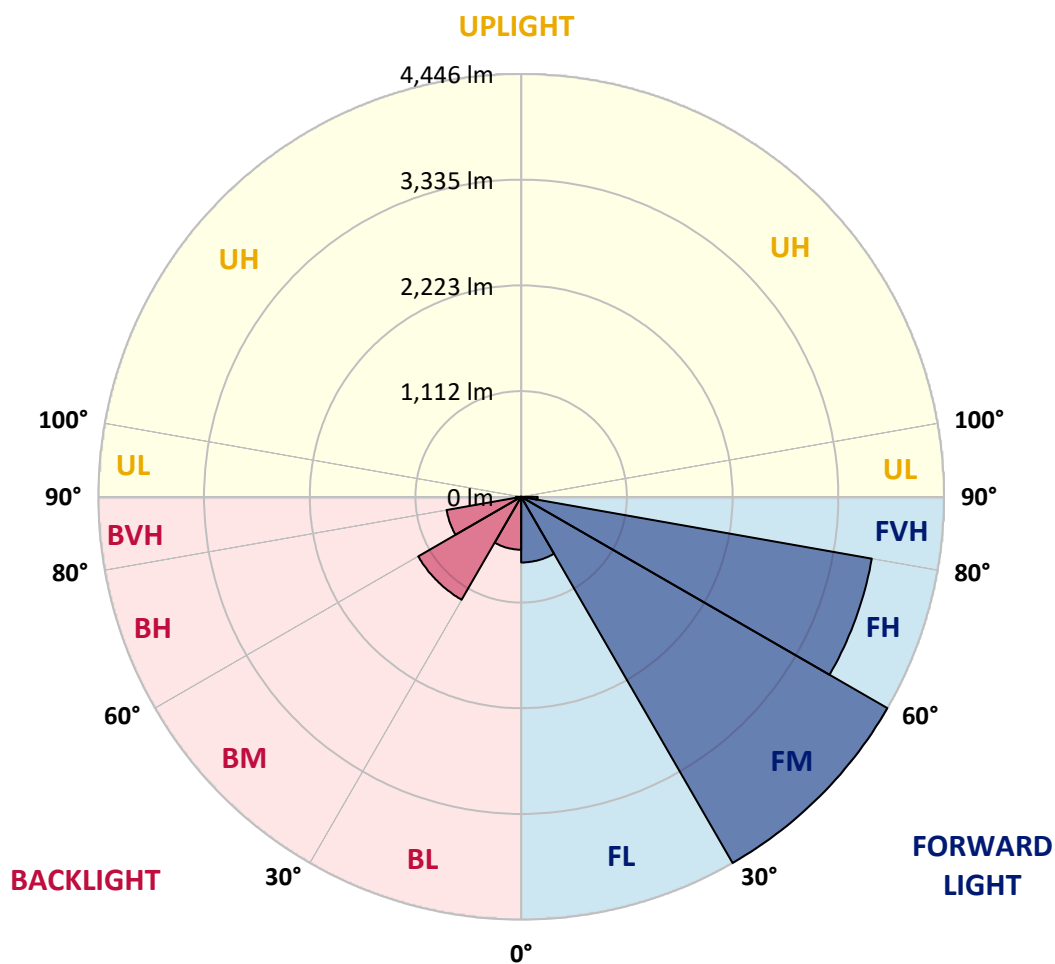
CATALOG NUMBER: VAL-E04-LED-E-U-GL2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	690.6	5.9			
FM	(30°-60°)	4446.0	38.0			
FH	(60°-80°)	3743.8	32.0			G2/5000
FVH	(80°-90°)	173.0	1.5			G2/225
BL	(0°-30°)	556.0	4.7	B2/1000		
BM	(30°-60°)	1250.4	10.7	B2/2500		
BH	(60°-80°)	797.0	6.8	B2/1000		G2/1000
BVH	(80°-90°)	55.1	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





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CATALOG NUMBER: VAL-E04-LED-E-U-GL2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	71°	72°
0°	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8
2.5°	1282.4	1281.6	1285.6	1288.8	1288.8	1290.4	1289.6	1284.8	1285.6	1287.2	1285.6
5°	1296.8	1293.6	1297.6	1302.4	1305.6	1309.6	1313.6	1314.4	1317.6	1317.6	1316.8
7.5°	1328.0	1325.6	1331.2	1332.8	1340.0	1346.4	1354.4	1360.0	1363.2	1364.8	1367.2
10°	1381.6	1380.0	1381.6	1384.8	1388.0	1395.2	1408.8	1420.8	1428.0	1428.0	1431.2
12.5°	1446.4	1440.0	1441.6	1435.2	1436.8	1452.0	1468.0	1488.0	1500.0	1501.6	1503.2
15°	1496.8	1493.6	1491.2	1482.4	1488.8	1508.8	1533.6	1562.4	1572.8	1581.6	1580.8
17.5°	1544.0	1540.0	1534.4	1522.4	1528.8	1560.8	1598.4	1630.4	1648.0	1649.6	1651.2
20°	1600.0	1595.2	1584.8	1560.0	1558.4	1603.2	1653.6	1688.0	1704.0	1711.2	1713.6
22.5°	1671.2	1664.8	1645.6	1597.6	1584.8	1637.6	1697.6	1740.0	1756.8	1764.0	1768.0
25°	1762.4	1749.6	1719.2	1644.0	1617.6	1672.8	1744.8	1796.0	1819.2	1826.4	1831.2
27.5°	1844.8	1835.2	1798.4	1709.6	1664.0	1720.0	1802.4	1868.0	1900.0	1908.8	1916.0
30°	1940.8	1927.2	1897.6	1803.2	1742.4	1792.0	1896.8	1980.0	2019.2	2020.0	2036.0
32.5°	2166.4	2157.6	2130.4	2026.4	1924.0	1927.2	2024.8	2139.2	2178.4	2184.8	2199.2
35°	2500.8	2497.6	2496.8	2439.2	2363.2	2284.8	2292.0	2379.2	2405.6	2416.0	2420.8
37.5°	2720.8	2748.8	2816.8	2858.4	2839.2	2856.0	2768.0	2661.6	2646.4	2635.2	2640.0
40°	2910.4	2935.2	3072.8	3264.8	3381.6	3464.0	3386.4	3060.0	2938.4	2903.2	2889.6
42.5°	3022.4	3050.4	3247.2	3554.4	3852.0	4047.2	4068.0	3614.4	3305.6	3301.6	3250.4
45°	3083.2	3111.2	3346.4	3760.0	4180.8	4532.8	4715.2	4296.8	3843.2	3809.6	3738.4
47.5°	3071.2	3097.6	3342.4	3836.0	4375.2	4855.2	5220.0	4986.4	4463.2	4382.4	4284.0
50°	2924.8	2944.0	3200.8	3712.0	4323.2	4989.6	5565.6	5619.2	5164.8	5055.2	4908.0
52.5°	2773.6	2808.0	3020.8	3492.0	4087.2	4906.4	5772.0	6195.2	5820.0	5744.8	5556.0
55°	2692.0	2719.2	2892.8	3295.2	3838.4	4622.4	5857.6	6738.4	6616.0	6585.6	6452.0
57.5°	2688.8	2715.2	2853.6	3176.0	3636.0	4326.4	5882.4	7577.6	7936.8	7944.8	7906.4
60°	2820.0	2847.2	2963.2	3233.6	3573.6	4072.8	5793.6	8768.0	9561.6	9632.0	9749.6
62.5°	2838.4	2851.2	2991.2	3356.0	3800.8	3883.2	5428.0	9759.2	10678.4	10743.2	10808.0
65°	2539.2	2538.4	2662.4	2998.4	3753.6	3864.0	4878.4	9880.8	10633.6	10672.8	10753.6
67.5°	1893.6	1877.6	1948.0	2255.2	2978.4	3868.8	4227.2	8963.2	9804.8	9879.2	9906.4
70°	976.0	1000.8	1048.8	1236.8	1891.2	3114.4	3631.2	7562.4	8607.2	8635.2	8732.0
72.5°	400.8	390.4	423.2	520.0	946.4	2058.4	3004.0	5968.0	7108.8	7089.6	7107.2
75°	223.2	226.4	236.0	271.2	460.0	1033.6	2580.8	4224.8	4834.4	4503.2	4403.2
77.5°	179.2	180.8	181.6	188.0	251.2	551.2	1980.8	2782.4	2431.2	2257.6	2191.2
80°	131.2	140.0	149.6	151.2	172.8	312.8	1086.4	2342.4	2052.0	1908.0	1789.6
82.5°	105.6	109.6	130.4	133.6	137.6	186.4	492.0	2200.0	2044.0	1896.8	1733.6
85°	63.2	70.4	106.4	107.2	108.8	113.6	272.0	896.0	1114.4	984.8	901.6
87.5°	22.4	28.8	52.8	44.0	56.0	46.4	119.2	300.0	369.6	351.2	311.2
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: VAL-E04-LED-E-U-GL2

CANDELA DISTRIBUTION (continued):

	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°	83°
0°	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8
2.5°	1284.8	1284.8	1286.4	1285.6	1285.6	1285.6	1285.6	1284.0	1284.0	1281.6	1283.2
5°	1316.8	1316.0	1316.8	1317.6	1316.8	1318.4	1317.6	1316.8	1317.6	1316.8	1317.6
7.5°	1368.0	1364.0	1369.6	1366.4	1365.6	1370.4	1368.0	1370.4	1371.2	1370.4	1369.6
10°	1432.8	1435.2	1435.2	1435.2	1433.6	1438.4	1439.2	1440.8	1441.6	1444.8	1444.8
12.5°	1507.2	1508.0	1511.2	1510.4	1512.0	1517.6	1521.6	1522.4	1523.2	1525.6	1522.4
15°	1587.2	1588.8	1588.8	1596.0	1593.6	1601.6	1604.0	1604.0	1604.8	1614.4	1615.2
17.5°	1658.4	1658.4	1664.8	1664.8	1671.2	1672.8	1680.0	1680.8	1684.0	1692.8	1693.6
20°	1718.4	1721.6	1725.6	1730.4	1732.8	1737.6	1742.4	1747.2	1751.2	1758.4	1759.2
22.5°	1775.2	1778.4	1784.8	1788.0	1793.6	1796.8	1800.8	1806.4	1812.8	1822.4	1824.8
25°	1840.8	1844.0	1851.2	1856.0	1862.4	1867.2	1874.4	1881.6	1885.6	1895.2	1902.4
27.5°	1924.0	1933.6	1943.2	1945.6	1950.4	1961.6	1971.2	1980.8	1989.6	1994.4	2003.2
30°	2045.6	2045.6	2065.6	2065.6	2074.4	2084.8	2091.2	2101.6	2117.6	2122.4	2133.6
32.5°	2208.8	2212.8	2220.0	2241.6	2257.6	2262.4	2267.2	2282.4	2292.0	2304.0	2317.6
35°	2441.6	2445.6	2449.6	2470.4	2488.8	2493.6	2498.4	2508.0	2524.0	2544.8	2538.4
37.5°	2650.4	2652.8	2665.6	2688.8	2699.2	2712.0	2716.0	2733.6	2742.4	2761.6	2762.4
40°	2901.6	2896.0	2903.2	2929.6	2945.6	2944.8	2957.6	2989.6	2996.0	3004.8	3027.2
42.5°	3252.0	3231.2	3253.6	3262.4	3286.4	3301.6	3327.2	3348.8	3364.0	3397.6	3413.6
45°	3704.8	3683.2	3701.6	3705.6	3755.2	3770.4	3808.8	3837.6	3870.4	3908.8	3920.0
47.5°	4220.8	4180.8	4158.4	4183.2	4242.4	4267.2	4304.8	4332.0	4366.4	4386.4	4380.0
50°	4818.4	4722.4	4677.6	4664.8	4707.2	4742.4	4800.8	4813.6	4829.6	4828.8	4829.6
52.5°	5484.8	5384.8	5291.2	5226.4	5220.0	5267.2	5281.6	5284.8	5280.0	5244.0	5221.6
55°	6355.2	6348.0	6249.6	6115.2	6106.4	6100.8	6016.8	6006.4	5987.2	5932.0	5856.0
57.5°	7934.4	8014.4	7949.6	7946.4	7876.0	7829.6	7675.2	7598.4	7517.6	7368.0	7248.8
60°	9760.0	9876.0	9940.0	9968.0	10105.6	10105.6	9979.2	9870.4	9739.2	9511.2	9288.8
62.5°	10859.2	10960.8	11055.2	11203.2	11378.4	11456.0	11462.4	11365.6	11200.0	10940.0	10625.6
65°	10789.6	10864.8	10979.2	11153.6	11298.4	11437.6	11531.2	11501.6	11375.2	11115.2	10772.8
67.5°	10001.6	10111.2	10259.2	10420.0	10554.4	10685.6	10836.8	10848.0	10814.4	10567.2	10257.6
70°	8785.6	8926.4	9020.0	9222.4	9283.2	9416.0	9568.0	9640.8	9586.4	9396.0	9214.4
72.5°	7137.6	7248.8	7264.8	7176.8	7207.2	7240.0	7276.8	7106.4	7040.8	6786.4	6669.6
75°	4328.0	4181.6	4058.4	3936.0	3570.4	3440.8	3241.6	2848.8	2804.0	2534.4	2347.2
77.5°	2058.4	1996.8	1885.6	1699.2	1451.2	1213.6	1007.2	818.4	748.0	616.0	524.8
80°	1723.2	1649.6	1549.6	1411.2	1237.6	1064.8	901.6	761.6	620.8	505.6	404.0
82.5°	1580.8	1452.8	1312.0	1192.8	1070.4	952.8	843.2	716.8	642.4	518.4	423.2
85°	799.2	700.0	567.2	477.6	403.2	328.0	284.0	242.4	216.0	172.0	149.6
87.5°	268.0	219.2	163.2	138.4	124.8	107.2	98.4	93.6	91.2	80.8	72.0
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):

	84°	85°	86°	87°	88°	89°	90°	91°	92°	93°	94°
0°	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8
2.5°	1283.2	1283.2	1283.2	1283.2	1282.4	1282.4	1282.4	1282.4	1282.4	1282.4	1283.2
5°	1316.0	1316.0	1316.8	1319.2	1314.4	1316.0	1317.6	1315.2	1317.6	1315.2	1318.4
7.5°	1368.8	1371.2	1369.6	1372.8	1371.2	1376.0	1372.8	1370.4	1372.0	1372.0	1372.8
10°	1443.2	1446.4	1444.0	1445.6	1445.6	1448.8	1444.8	1445.6	1446.4	1444.8	1445.6
12.5°	1525.6	1527.2	1526.4	1531.2	1528.8	1531.2	1528.8	1532.0	1533.6	1535.2	1535.2
15°	1615.2	1616.8	1621.6	1620.8	1625.6	1624.0	1624.8	1620.8	1628.8	1624.0	1625.6
17.5°	1697.6	1696.8	1703.2	1705.6	1706.4	1707.2	1709.6	1706.4	1707.2	1709.6	1708.0
20°	1761.6	1767.2	1768.8	1775.2	1780.0	1781.6	1780.8	1783.2	1786.4	1783.2	1783.2
22.5°	1829.6	1837.6	1840.0	1844.0	1848.8	1849.6	1854.4	1856.8	1858.4	1857.6	1858.4
25°	1911.2	1916.8	1922.4	1930.4	1936.0	1936.8	1940.8	1944.0	1944.8	1944.0	1948.8
27.5°	2011.2	2018.4	2025.6	2035.2	2041.6	2043.2	2052.0	2052.0	2056.8	2059.2	2060.8
30°	2140.0	2142.4	2160.8	2170.4	2168.0	2179.2	2191.2	2190.4	2196.0	2197.6	2201.6
32.5°	2327.2	2327.2	2343.2	2355.2	2368.0	2364.0	2382.4	2379.2	2388.0	2392.8	2390.4
35°	2554.4	2562.4	2574.4	2581.6	2595.2	2602.4	2615.2	2622.4	2626.4	2625.6	2616.8
37.5°	2788.8	2801.6	2806.4	2824.0	2837.6	2849.6	2851.2	2843.2	2846.4	2830.4	2825.6
40°	3056.8	3075.2	3086.4	3112.8	3111.2	3126.4	3128.0	3104.8	3100.8	3080.0	3058.4
42.5°	3431.2	3456.8	3465.6	3485.6	3469.6	3476.8	3436.8	3427.2	3395.2	3361.6	3312.8
45°	3936.0	3923.2	3928.8	3923.2	3880.8	3849.6	3816.8	3769.6	3722.4	3657.6	3588.0
47.5°	4380.0	4386.4	4344.8	4318.4	4249.6	4205.6	4145.6	4063.2	4005.6	3918.4	3826.4
50°	4811.2	4740.0	4681.6	4620.8	4560.0	4479.2	4388.8	4316.0	4232.0	4123.2	4010.4
52.5°	5161.6	5069.6	4999.2	4912.8	4830.4	4740.8	4646.4	4540.8	4430.4	4321.6	4182.4
55°	5782.4	5648.8	5558.4	5407.2	5313.6	5188.0	5114.4	4977.6	4824.0	4680.0	4532.0
57.5°	7114.4	6914.4	6811.2	6725.6	6580.0	6373.6	6242.4	6017.6	5798.4	5644.8	5398.4
60°	9120.8	8917.6	8746.4	8544.0	8320.8	8040.8	7916.0	7651.2	7337.6	7084.0	6758.4
62.5°	10371.2	10090.4	9812.8	9528.8	9304.8	9085.6	8827.2	8560.0	8249.6	7904.8	7548.8
65°	10421.6	10084.8	9752.8	9463.2	9200.8	8916.0	8673.6	8402.4	8076.0	7720.8	7351.2
67.5°	9898.4	9521.6	9165.6	8848.0	8548.0	8284.0	8030.4	7775.2	7425.6	7128.0	6749.6
70°	8856.0	8512.0	8189.6	7828.0	7598.4	7301.6	7054.4	6785.6	6535.2	6256.8	5902.4
72.5°	6504.8	6245.6	5877.6	5724.0	5600.8	5286.4	5102.4	5080.0	4920.0	4586.4	4321.6
75°	2419.2	2059.2	1950.4	2015.2	1907.2	1943.2	1929.6	1852.8	1856.0	1799.2	1732.0
77.5°	473.6	440.0	413.6	420.8	391.2	378.4	405.6	397.6	383.2	387.2	380.8
80°	322.4	272.8	247.2	237.6	225.6	220.0	218.4	216.0	211.2	208.8	201.6
82.5°	317.6	236.0	186.4	160.0	150.4	145.6	141.6	140.8	139.2	138.4	140.8
85°	126.4	102.4	93.6	85.6	83.2	80.8	80.8	80.0	79.2	80.8	84.0
87.5°	61.6	52.0	47.2	43.2	41.6	40.8	40.8	41.6	42.4	45.6	52.0
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: P177428

CATALOG NUMBER: VAL-E04-LED-E-U-GL2

CANDELA DISTRIBUTION (continued):

	95°	96°	97°	98°	99°	100°	101°	102°	103°	104°	105°
0°	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8
2.5°	1281.6	1282.4	1280.8	1281.6	1280.8	1279.2	1278.4	1280.8	1280.0	1279.2	1279.2
5°	1314.4	1317.6	1316.0	1314.4	1314.4	1313.6	1313.6	1313.6	1312.8	1313.6	1311.2
7.5°	1371.2	1370.4	1370.4	1368.8	1367.2	1368.8	1368.0	1365.6	1366.4	1364.8	1362.4
10°	1444.0	1441.6	1445.6	1445.6	1442.4	1441.6	1440.0	1437.6	1437.6	1435.2	1435.2
12.5°	1530.4	1528.0	1533.6	1529.6	1524.8	1524.0	1519.2	1517.6	1520.0	1519.2	1517.6
15°	1618.4	1619.2	1621.6	1620.8	1615.2	1615.2	1608.8	1609.6	1604.8	1603.2	1599.2
17.5°	1704.0	1704.8	1702.4	1702.4	1698.4	1696.0	1688.8	1689.6	1686.4	1680.0	1675.2
20°	1780.8	1780.0	1774.4	1779.2	1771.2	1769.6	1763.2	1756.8	1758.4	1752.0	1742.4
22.5°	1856.0	1854.4	1852.8	1850.4	1846.4	1844.8	1837.6	1836.8	1828.8	1819.2	1811.2
25°	1943.2	1942.4	1940.0	1940.8	1932.8	1933.6	1920.8	1917.6	1912.8	1902.4	1896.0
27.5°	2056.0	2056.0	2049.6	2047.2	2044.8	2041.6	2030.4	2022.4	2010.4	1998.4	1985.6
30°	2194.4	2192.8	2191.2	2184.8	2176.0	2171.2	2151.2	2138.4	2122.4	2100.0	2080.8
32.5°	2392.0	2378.4	2367.2	2352.8	2338.4	2323.2	2292.0	2270.4	2244.8	2208.8	2178.4
35°	2612.0	2588.8	2576.8	2547.2	2520.0	2489.6	2452.0	2408.0	2372.8	2325.6	2276.0
37.5°	2793.6	2776.0	2744.0	2710.4	2672.0	2614.4	2572.0	2524.8	2463.2	2411.2	2351.2
40°	3017.6	2977.6	2932.0	2876.0	2823.2	2758.4	2700.0	2632.0	2556.8	2481.6	2403.2
42.5°	3252.8	3191.2	3116.0	3051.2	2971.2	2886.4	2810.4	2718.4	2622.4	2521.6	2416.8
45°	3492.8	3416.8	3316.8	3224.8	3113.6	3007.2	2898.4	2772.8	2641.6	2507.2	2375.2
47.5°	3712.8	3601.6	3488.0	3364.0	3236.0	3099.2	2944.8	2780.0	2607.2	2430.4	2265.6
50°	3885.6	3746.4	3603.2	3460.0	3303.2	3125.6	2931.2	2716.0	2503.2	2291.2	2101.6
52.5°	4038.4	3882.4	3706.4	3528.8	3335.2	3116.8	2873.6	2620.0	2360.8	2126.4	1913.6
55°	4334.4	4138.4	3906.4	3677.6	3432.8	3157.6	2854.4	2544.0	2245.6	1990.4	1764.0
57.5°	5138.4	4873.6	4514.4	4196.8	3886.4	3485.6	3058.4	2676.0	2296.0	1994.4	1742.4
60°	6404.8	5973.6	5562.4	5078.4	4576.0	4026.4	3453.6	2938.4	2475.2	2096.8	1793.6
62.5°	7139.2	6684.0	6155.2	5568.8	4917.6	4248.0	3590.4	2988.8	2480.8	2068.8	1732.8
65°	6940.8	6483.2	5901.6	5301.6	4608.8	3924.0	3271.2	2693.6	2200.8	1820.0	1498.4
67.5°	6352.0	5873.6	5327.2	4661.6	3999.2	3364.8	2769.6	2225.6	1789.6	1434.4	1150.4
70°	5495.2	5069.6	4543.2	3929.6	3287.2	2716.8	2215.2	1724.8	1356.0	1030.4	806.4
72.5°	4078.4	3701.6	3372.8	2860.0	2389.6	1942.4	1533.6	1200.0	882.4	667.2	513.6
75°	1712.0	1584.8	1531.2	1343.2	1168.0	957.6	720.8	574.4	465.6	396.0	314.4
77.5°	415.2	415.2	390.4	365.6	336.0	304.0	268.8	240.0	225.6	212.8	202.4
80°	201.6	200.0	193.6	192.8	187.2	180.0	176.0	170.4	168.0	164.8	163.2
82.5°	141.6	140.8	138.4	141.6	140.8	144.0	145.6	146.4	146.4	147.2	148.0
85°	89.6	92.8	99.2	107.2	114.4	123.2	131.2	137.6	142.4	146.4	149.6
87.5°	56.8	64.8	69.6	81.6	93.6	107.2	122.4	128.8	134.4	135.2	130.4
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: P177428

CATALOG NUMBER: VAL-E04-LED-E-U-GL2

CANDELA DISTRIBUTION (continued):

	106°	107°	108°	109°	110°	115°	125°	135°	145°	155°	165°
0°	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8	1272.8
2.5°	1279.2	1278.4	1280.0	1278.4	1278.4	1277.6	1275.2	1272.8	1270.4	1269.6	1267.2
5°	1310.4	1310.4	1312.0	1308.8	1309.6	1306.4	1299.2	1291.2	1284.0	1277.6	1270.4
7.5°	1363.2	1360.8	1361.6	1360.8	1359.2	1352.8	1336.8	1316.8	1297.6	1277.6	1261.6
10°	1433.6	1428.8	1428.8	1427.2	1424.8	1416.0	1382.4	1342.4	1302.4	1266.4	1240.0
12.5°	1512.0	1512.8	1506.4	1502.4	1498.4	1480.0	1429.6	1365.6	1302.4	1244.8	1202.4
15°	1593.6	1592.8	1585.6	1583.2	1574.4	1547.2	1471.2	1377.6	1287.2	1202.4	1139.2
17.5°	1667.2	1664.0	1656.8	1652.0	1642.4	1606.4	1499.2	1372.0	1247.2	1136.0	1056.8
20°	1734.4	1730.4	1724.0	1715.2	1705.6	1653.6	1509.6	1343.2	1184.0	1056.8	976.8
22.5°	1804.0	1795.2	1788.0	1776.0	1765.6	1696.0	1502.4	1292.0	1112.0	968.8	883.2
25°	1881.6	1871.2	1856.0	1841.6	1825.6	1730.4	1482.4	1228.0	1025.6	873.6	787.2
27.5°	1965.6	1950.4	1930.4	1912.0	1886.4	1756.0	1448.0	1156.8	931.2	779.2	689.6
30°	2054.4	2026.4	2001.6	1973.6	1940.8	1768.0	1398.4	1068.8	827.2	683.2	593.6
32.5°	2140.8	2103.2	2066.4	2025.6	1980.8	1763.2	1328.0	964.8	723.2	593.6	518.4
35°	2228.8	2174.4	2123.2	2068.0	2013.6	1739.2	1231.2	849.6	624.8	519.2	464.8
37.5°	2288.8	2220.8	2152.8	2086.4	2020.8	1687.2	1102.4	720.8	536.0	465.6	426.4
40°	2319.2	2236.0	2152.8	2070.4	1989.6	1600.8	952.0	603.2	472.8	425.6	397.6
42.5°	2310.4	2207.2	2104.0	2006.4	1907.2	1463.2	788.8	506.4	428.8	394.4	369.6
45°	2237.6	2114.4	1996.8	1893.6	1769.6	1286.4	648.0	446.4	395.2	368.8	345.6
47.5°	2100.8	1963.2	1819.2	1702.4	1586.4	1081.6	539.2	408.8	365.6	344.0	320.8
50°	1926.4	1767.2	1623.2	1496.8	1383.2	890.4	464.8	376.8	341.6	323.2	298.4
52.5°	1734.4	1563.2	1432.0	1299.2	1188.0	743.2	412.8	341.6	318.4	299.2	279.2
55°	1575.2	1416.8	1283.2	1149.6	1037.6	650.4	369.6	314.4	296.8	276.8	260.8
57.5°	1532.8	1352.0	1206.4	1080.0	964.8	593.6	338.4	289.6	277.6	262.4	244.8
60°	1550.4	1351.2	1188.0	1049.6	928.8	548.0	315.2	272.8	263.2	249.6	231.2
62.5°	1487.2	1276.8	1112.0	964.8	850.4	490.4	298.4	264.8	258.4	240.0	219.2
65°	1267.2	1074.4	916.0	788.8	690.4	412.8	284.8	272.0	265.6	233.6	211.2
67.5°	964.8	804.0	676.8	581.6	510.4	341.6	281.6	296.0	283.2	236.8	208.8
70°	667.2	545.6	464.0	406.4	361.6	288.0	292.0	322.4	304.0	247.2	222.4
72.5°	423.2	353.6	313.6	292.0	270.4	243.2	289.6	319.2	294.4	248.8	222.4
75°	271.2	242.4	228.8	220.8	214.4	212.0	255.2	262.4	236.8	216.0	207.2
77.5°	192.0	187.2	184.8	184.0	184.8	190.4	211.2	197.6	172.0	172.8	177.6
80°	162.4	162.4	160.8	161.6	163.2	165.6	168.8	145.6	132.0	142.4	158.4
82.5°	148.8	151.2	152.8	154.4	156.8	153.6	143.2	110.4	106.4	138.4	155.2
85°	151.2	151.2	152.0	153.6	154.4	138.4	119.2	83.2	81.6	155.2	146.4
87.5°	129.6	128.0	122.4	118.4	112.8	95.2	79.2	46.4	48.0	96.0	102.4
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: P177428

CATALOG NUMBER: VAL-E04-LED-E-U-GL2

CANDELA DISTRIBUTION (continued):

	175°	180°
0°	1272.8	1272.8
2.5°	1266.4	1266.4
5°	1266.4	1266.4
7.5°	1256.0	1252.8
10°	1225.6	1221.6
12.5°	1179.2	1175.2
15°	1108.0	1103.2
17.5°	1019.2	1011.2
20°	926.4	915.2
22.5°	833.6	824.8
25°	738.4	730.4
27.5°	644.8	636.8
30°	558.4	555.2
32.5°	494.4	491.2
35°	447.2	445.6
37.5°	415.2	413.6
40°	387.2	385.6
42.5°	361.6	359.2
45°	336.0	336.8
47.5°	310.4	309.6
50°	288.0	288.0
52.5°	269.6	268.8
55°	252.8	252.0
57.5°	236.0	235.2
60°	221.6	219.2
62.5°	208.0	206.4
65°	199.2	198.4
67.5°	192.8	190.4
70°	191.2	184.8
72.5°	186.4	178.4
75°	175.2	171.2
77.5°	154.4	149.6
80°	119.2	110.4
82.5°	100.0	86.4
85°	73.6	68.0
87.5°	53.6	42.4
90°	0.0	0.0

(END OF REPORT)