

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: P154793

Luminaire Tested: **AVS-F03-LED-E-U-T2-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P154793
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33671)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: AVS-F03-LED-E-U-T2-8030
Description: VISION SITE SMALL LED LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (21) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6404.1 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - 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: 28.75 FT



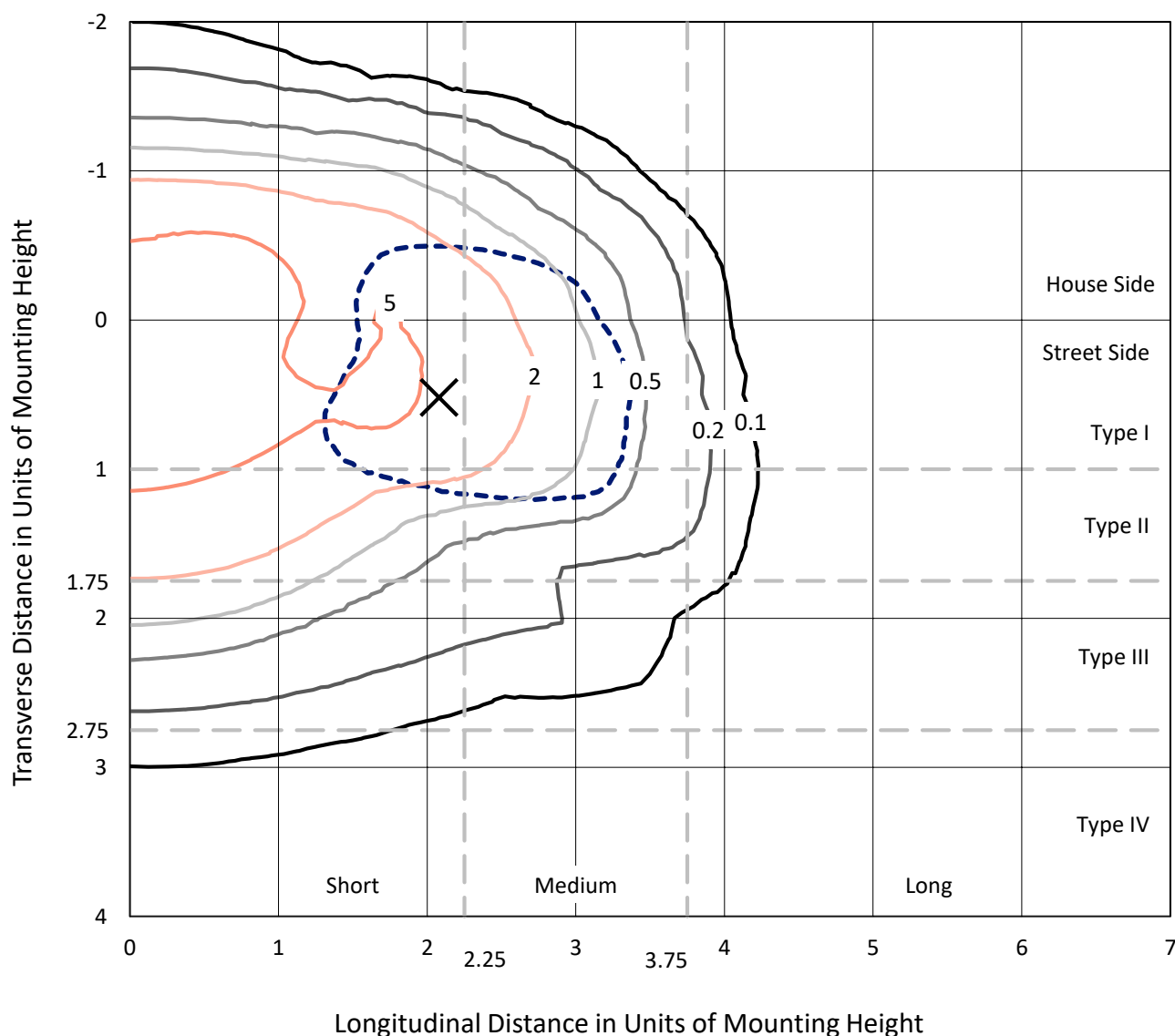
REPORT NUMBER: P154793

CATALOG NUMBER: AVS-F03-LED-E-U-T2-8030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

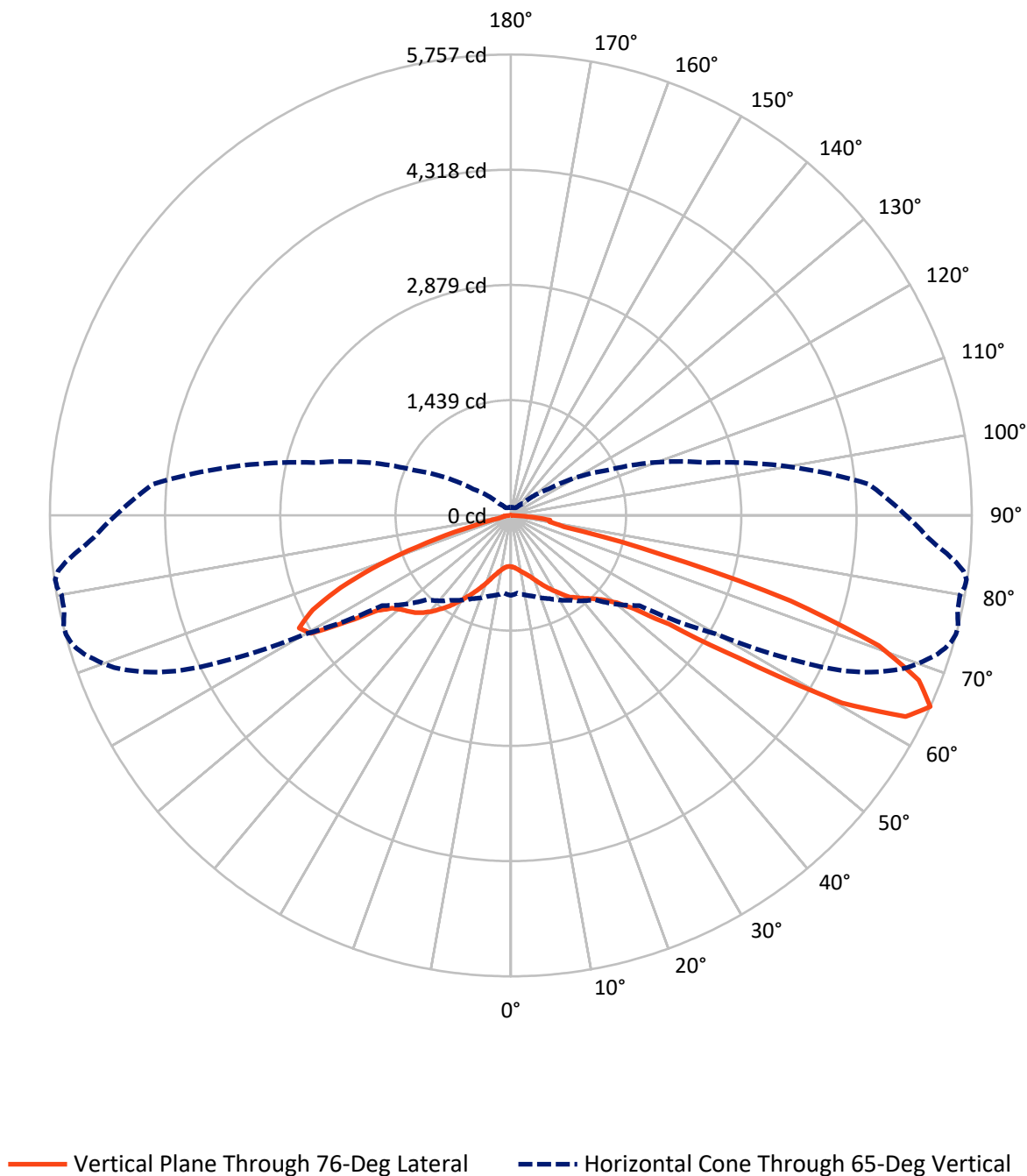


Based on 10 foot mounting height. Maximum calculated value = 7.8 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P154793

CATALOG NUMBER: AVS-F03-LED-E-U-T2-8030

Luminous Intensity Polar Plot



REPORT NUMBER: P154793

CATALOG NUMBER: AVS-F03-LED-E-U-T2-8030

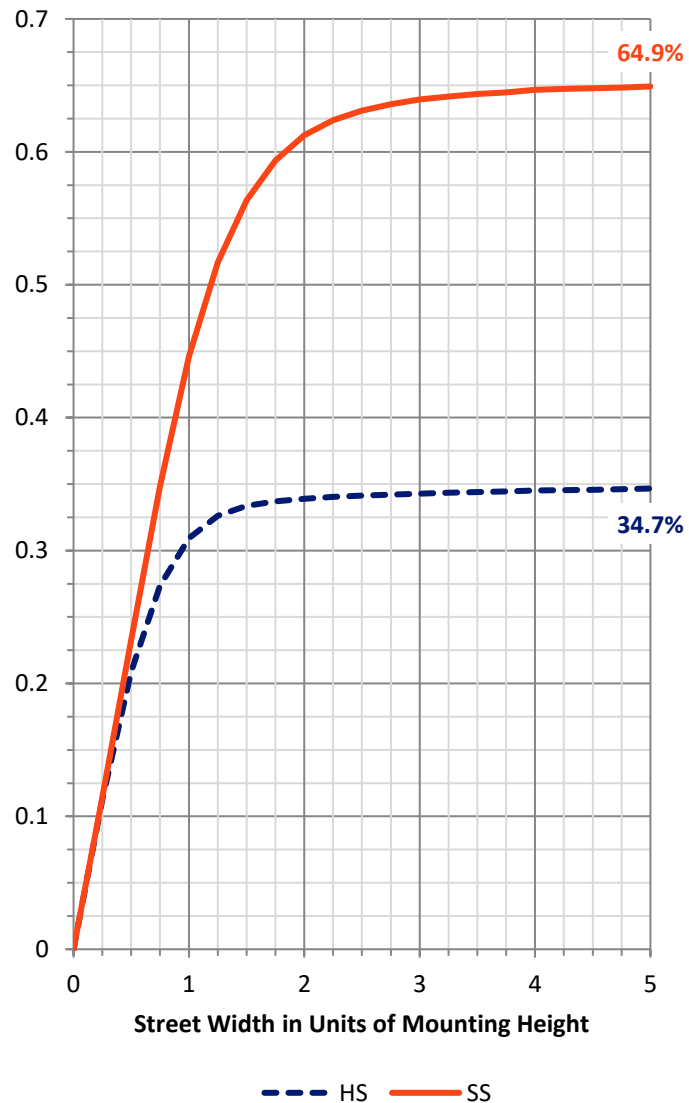
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2242.5	0.0	2242.5
	% Fixture	35.0	0.0	35.0
Street Side	Lumens	4161.5	0.0	4161.5
	% Fixture	65.0	0.0	65.0
Total	Lumens	6404.1	0.0	6404.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.1	1.0
10°-20°	220.2	3.4
20°-30°	432.7	6.8
30°-40°	718.9	11.2
40°-50°	1056.4	16.5
50°-60°	1462.5	22.8
60°-70°	1745.7	27.3
70°-80°	617.3	9.6
80°-90°	86.3	1.3
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°	6404.1	100.0
0°-180°	6404.1	100.0

Coefficient of Utilization



REPORT NUMBER: P154793

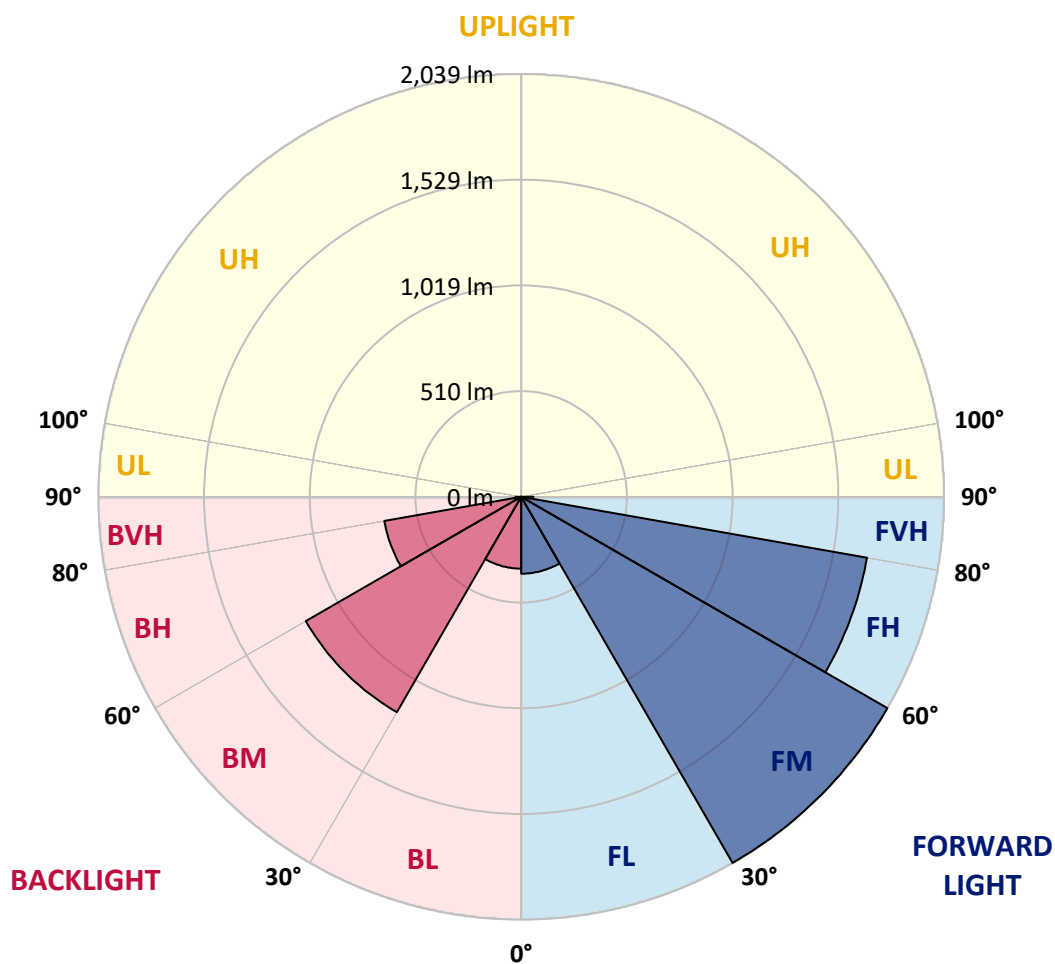
CATALOG NUMBER: AVS-F03-LED-E-U-T2-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	370.6	5.8			
FM	(30°-60°)	2038.9	31.8			
FH	(60°-80°)	1693.2	26.4			G1/1800
FVH	(80°-90°)	59.0	0.9			G1/100
BL	(0°-30°)	346.5	5.4	B1/500		
BM	(30°-60°)	1198.9	18.7	B2/2500		
BH	(60°-80°)	669.8	10.5	B2/1000		G2/1000
BVH	(80°-90°)	27.3	0.4			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: P154793

CATALOG NUMBER: AVS-F03-LED-E-U-T2-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3
2.5°	668.2	668.9	667.5	666.7	664.7	661.2	658.4	655.6	655.6	655.6	653.6
5°	697.4	698.9	696.1	694.0	687.7	684.1	679.3	675.9	674.4	673.8	671.6
7.5°	734.4	732.2	728.1	726.7	721.9	714.2	705.1	698.1	698.1	697.4	698.1
10°	771.3	765.7	763.6	761.6	753.9	744.1	733.7	726.0	725.3	724.6	722.5
12.5°	808.2	806.1	804.0	796.4	788.7	773.4	761.6	753.9	753.2	753.9	751.1
15°	857.0	852.1	850.1	836.8	820.1	803.3	788.7	781.8	779.7	780.3	778.2
17.5°	894.6	894.6	889.7	875.1	853.5	830.5	815.1	811.0	810.3	810.3	811.0
20°	924.6	923.8	919.0	907.2	881.3	858.3	850.7	849.3	848.6	848.6	850.7
22.5°	941.2	939.9	937.8	924.6	904.4	889.0	889.7	893.9	895.3	896.7	899.5
25°	949.6	947.6	946.8	937.8	923.2	921.0	933.6	944.8	947.6	950.4	953.8
27.5°	963.6	960.1	961.5	958.0	954.5	960.8	986.5	998.4	1000.5	1004.0	1006.1
30°	1001.9	1000.5	1006.1	1007.5	1010.3	1019.3	1043.0	1054.2	1059.1	1059.1	1068.8
32.5°	1075.0	1075.8	1077.2	1091.8	1096.7	1102.9	1115.4	1124.6	1125.2	1125.9	1135.0
35°	1173.3	1177.5	1189.3	1201.9	1213.7	1213.1	1205.4	1210.3	1206.7	1210.9	1211.6
37.5°	1297.3	1291.7	1309.1	1337.7	1355.9	1351.0	1316.8	1294.5	1300.8	1298.0	1296.0
40°	1392.7	1399.1	1432.5	1470.2	1484.0	1499.4	1454.8	1416.5	1410.9	1400.4	1394.2
42.5°	1524.5	1525.2	1552.3	1580.2	1620.6	1654.1	1625.5	1570.5	1553.7	1541.1	1514.0
45°	1646.4	1644.2	1666.6	1700.7	1748.8	1796.9	1807.4	1747.5	1741.1	1718.9	1683.3
47.5°	1727.9	1725.1	1740.4	1785.1	1863.1	1941.8	1985.0	1966.8	1955.0	1946.0	1890.3
50°	1782.9	1777.4	1794.8	1842.2	1929.2	2050.5	2163.3	2178.7	2173.8	2173.8	2138.2
52.5°	1824.0	1824.0	1836.6	1874.9	1963.4	2114.6	2316.7	2394.0	2400.2	2407.3	2405.2
55°	1801.0	1804.6	1835.9	1891.6	1985.0	2159.2	2443.4	2612.7	2647.6	2676.9	2710.3
57.5°	1722.3	1734.2	1776.0	1867.3	1990.6	2192.6	2584.1	2919.3	3017.5	3102.6	3234.9
60°	1607.4	1622.7	1683.3	1799.7	1949.4	2138.2	2633.7	3178.5	3334.6	3519.9	3865.5
62.5°	1410.2	1425.5	1484.8	1601.1	1729.3	1929.9	2428.8	3216.8	3466.2	3728.9	4251.5
65°	999.1	974.7	1043.0	1147.6	1294.5	1488.9	1962.7	2959.7	3318.5	3674.6	4319.8
67.5°	556.7	554.6	596.4	674.4	815.1	1024.2	1352.3	2269.9	2600.2	3003.6	3795.9
70°	383.9	388.1	414.5	498.9	615.2	795.6	963.6	1425.5	1663.1	1936.9	2715.9
72.5°	269.6	278.7	293.4	343.5	462.6	670.3	984.5	852.1	970.6	1157.3	1633.2
75°	158.1	164.5	174.9	199.3	263.3	448.0	1019.3	749.0	749.0	792.8	988.0
77.5°	97.5	97.5	103.8	113.6	140.0	219.5	726.0	841.7	817.9	792.8	795.0
80°	50.2	53.7	62.7	67.6	78.0	100.3	326.1	785.2	861.1	912.0	876.5
82.5°	23.0	25.8	38.3	41.1	45.3	53.0	112.1	446.6	598.4	788.0	984.5
85°	11.8	11.8	20.2	25.1	27.2	24.4	41.1	180.4	273.2	416.7	652.1
87.5°	2.1	2.1	3.5	4.1	6.3	5.6	6.9	10.5	17.4	18.9	19.5
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: P154793

CATALOG NUMBER: AVS-F03-LED-E-U-T2-8030

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3
2.5°	652.8	653.6	652.8	652.1	650.8	650.8	650.8	650.1	650.1	650.1	649.3
5°	671.6	668.9	669.5	668.2	667.5	666.7	667.5	666.1	664.7	665.4	664.7
7.5°	695.3	694.0	691.2	691.2	690.5	689.1	689.1	686.9	686.3	684.9	684.1
10°	721.9	718.3	719.7	718.3	719.1	716.3	714.8	713.5	712.0	712.0	712.7
12.5°	749.0	748.3	746.2	744.8	744.8	742.7	743.4	742.7	740.6	739.9	737.8
15°	776.9	776.9	774.8	775.4	774.8	773.4	772.0	772.0	770.6	769.2	769.8
17.5°	809.6	809.6	809.6	809.6	810.3	808.2	808.9	807.6	806.1	808.9	808.9
20°	852.1	854.9	854.9	854.2	857.7	855.5	854.9	858.3	854.9	859.8	859.1
22.5°	900.8	903.6	903.6	906.4	907.2	909.2	910.7	909.2	912.0	914.8	914.8
25°	955.2	958.0	960.1	964.2	966.3	965.0	965.7	969.1	970.6	973.4	976.2
27.5°	1012.3	1013.1	1015.9	1020.7	1024.2	1025.6	1026.3	1031.9	1032.5	1034.0	1036.8
30°	1068.1	1075.0	1073.7	1079.9	1082.1	1084.1	1088.3	1090.4	1095.2	1098.0	1098.0
32.5°	1133.6	1132.2	1137.7	1142.7	1146.1	1149.6	1153.1	1155.9	1158.7	1160.1	1167.0
35°	1215.1	1217.9	1217.9	1218.5	1226.9	1227.7	1230.5	1236.7	1238.8	1243.0	1245.8
37.5°	1296.0	1291.1	1290.4	1290.4	1287.6	1289.6	1290.4	1291.1	1293.9	1294.5	1297.3
40°	1386.5	1380.2	1374.6	1371.2	1365.6	1357.9	1356.6	1353.1	1355.1	1354.4	1355.1
42.5°	1510.6	1493.1	1479.9	1470.2	1459.0	1450.6	1444.4	1435.2	1429.0	1421.3	1419.9
45°	1668.7	1636.0	1613.7	1597.6	1581.6	1558.5	1545.4	1531.4	1518.9	1506.3	1495.9
47.5°	1876.3	1841.5	1805.9	1776.7	1751.6	1714.7	1677.0	1656.2	1631.7	1610.2	1594.8
50°	2120.8	2079.1	2062.4	2021.2	1989.8	1934.1	1887.5	1853.4	1804.6	1771.8	1743.2
52.5°	2371.0	2360.5	2351.5	2316.7	2279.7	2247.7	2206.5	2146.6	2097.2	2059.6	2001.0
55°	2711.7	2716.6	2713.1	2694.3	2681.0	2650.4	2633.7	2581.5	2559.1	2504.8	2443.4
57.5°	3285.1	3324.1	3373.6	3393.1	3419.6	3394.5	3423.7	3459.3	3370.8	3401.5	3346.4
60°	4017.4	4196.5	4303.0	4434.0	4519.7	4639.6	4661.1	4692.5	4683.4	4700.8	4736.4
62.5°	4464.7	4677.2	4881.3	5029.7	5188.6	5276.4	5382.3	5456.2	5532.7	5584.4	5569.7
65°	4596.4	4815.1	5000.5	5162.8	5305.0	5412.2	5510.5	5603.1	5673.5	5723.0	5752.2
67.5°	4112.8	4398.4	4593.6	4783.8	4967.0	5079.9	5162.1	5252.0	5355.1	5440.8	5457.5
70°	3094.9	3523.4	3800.0	4027.9	4243.1	4395.0	4509.9	4593.6	4673.7	4735.0	4801.9
72.5°	1935.5	2310.4	2626.7	2922.1	3150.7	3359.7	3456.5	3641.9	3617.4	3664.1	3714.3
75°	1160.1	1342.6	1516.8	1725.1	1845.0	2019.2	2050.5	2081.1	2065.1	2012.8	2051.9
77.5°	806.1	836.1	834.7	822.8	810.3	779.7	739.9	718.3	703.7	682.8	691.2
80°	811.0	746.2	647.3	544.1	449.4	386.7	361.6	361.6	387.4	424.4	461.2
82.5°	969.1	900.2	802.6	671.6	532.3	433.4	367.2	340.7	345.6	383.2	430.6
85°	653.6	668.9	586.6	536.5	425.0	331.0	277.3	225.1	199.3	205.5	232.7
87.5°	23.7	28.6	10.5	13.9	9.7	8.4	8.4	9.0	6.3	7.7	6.9
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: P154793

CATALOG NUMBER: AVS-F03-LED-E-U-T2-8030

CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3
2.5°	648.7	648.0	648.0	646.5	646.5	645.9	645.9	645.2	644.5	644.5	643.8
5°	663.9	663.3	661.9	661.2	659.8	659.8	659.1	657.7	657.7	656.4	655.6
7.5°	685.6	684.1	682.8	682.1	681.5	679.3	679.3	677.9	677.9	676.6	675.9
10°	711.4	709.9	708.6	709.3	707.2	706.5	705.1	705.1	703.0	702.3	702.3
12.5°	739.3	738.5	738.5	736.5	735.8	735.0	732.2	732.2	732.2	730.9	731.6
15°	769.2	769.8	767.8	769.8	769.2	767.2	767.2	767.2	764.4	767.8	765.0
17.5°	809.6	811.7	810.3	811.0	809.6	809.6	810.3	809.6	811.0	811.0	815.1
20°	859.8	860.5	863.9	862.6	862.6	861.9	863.2	863.9	866.7	865.4	868.1
22.5°	914.8	918.3	919.0	921.8	921.8	921.0	922.5	925.3	926.6	928.7	928.1
25°	977.5	979.6	982.4	979.0	984.5	984.5	985.9	989.3	990.1	990.1	994.9
27.5°	1036.1	1041.7	1042.3	1045.8	1043.7	1045.1	1049.9	1052.0	1054.8	1054.8	1056.3
30°	1102.3	1104.4	1105.7	1109.9	1109.2	1109.9	1110.6	1114.1	1114.1	1117.5	1121.0
32.5°	1170.5	1171.9	1173.3	1177.5	1178.9	1181.7	1180.3	1183.0	1186.5	1187.3	1189.3
35°	1252.0	1253.5	1254.8	1261.1	1261.8	1266.6	1268.1	1266.6	1272.2	1268.7	1272.2
37.5°	1299.4	1305.7	1307.0	1311.3	1309.8	1313.4	1315.4	1318.2	1319.6	1322.4	1328.0
40°	1357.2	1359.4	1363.5	1365.6	1368.4	1369.1	1371.9	1374.0	1376.1	1382.3	1388.6
42.5°	1416.5	1419.3	1421.3	1424.1	1427.6	1430.4	1432.5	1438.8	1440.1	1444.4	1456.2
45°	1488.2	1486.8	1487.6	1488.2	1489.6	1493.1	1499.4	1505.6	1509.8	1519.6	1529.3
47.5°	1577.4	1568.4	1564.9	1559.3	1560.7	1568.4	1569.7	1580.2	1588.6	1597.6	1609.4
50°	1712.5	1688.2	1673.6	1659.0	1657.5	1661.8	1667.3	1678.4	1688.2	1700.0	1716.8
52.5°	1939.7	1893.1	1863.7	1823.3	1812.2	1810.2	1805.9	1812.2	1815.0	1831.0	1862.4
55°	2399.6	2313.2	2257.4	2194.7	2136.2	2118.8	2085.3	2092.3	2085.3	2095.1	2141.8
57.5°	3359.7	3290.7	3236.4	3156.2	3055.9	2949.3	2922.8	2813.4	2835.0	2897.7	2857.3
60°	4753.8	4728.7	4689.7	4651.4	4514.2	4436.8	4310.7	4296.8	4208.3	4209.0	4151.2
62.5°	5534.2	5566.2	5542.5	5531.4	5523.7	5499.4	5436.6	5361.3	5248.5	5166.9	5047.2
65°	5757.1	5729.9	5704.1	5700.7	5698.5	5738.3	5747.4	5694.4	5592.0	5465.2	5327.3
67.5°	5497.2	5481.9	5483.3	5454.1	5472.1	5541.1	5589.2	5574.6	5480.5	5327.3	5151.7
70°	4878.5	4848.6	4879.3	4917.5	4944.8	4984.5	5032.5	5044.4	4958.7	4801.2	4622.2
72.5°	3653.0	3657.8	3687.2	3697.6	3806.9	3795.9	3839.0	3698.2	3636.3	3486.4	3394.5
75°	1922.3	1891.0	1972.4	1799.7	1728.6	1778.0	1639.4	1506.3	1534.2	1557.2	1391.4
77.5°	679.3	635.4	560.8	530.9	441.8	374.2	305.9	276.0	259.9	251.5	241.0
80°	487.7	501.7	486.3	450.1	382.5	306.5	241.8	190.9	163.7	149.1	139.4
82.5°	493.3	548.3	572.7	562.3	500.9	379.1	250.2	159.6	118.4	99.0	92.0
85°	264.8	289.8	278.7	234.8	211.1	126.1	86.4	57.8	48.8	44.6	41.1
87.5°	10.5	8.4	6.9	6.9	7.7	8.4	6.9	7.7	6.9	6.9	6.9
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: P154793

CATALOG NUMBER: AVS-F03-LED-E-U-T2-8030

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°	155°
0°	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3	640.3
2.5°	642.4	642.4	642.4	641.7	640.3	636.8	633.4	630.6	628.5	626.3	623.6
5°	654.9	653.6	653.6	653.6	648.0	642.4	637.5	632.6	628.5	625.0	622.2
7.5°	675.9	675.1	672.3	671.6	667.5	658.4	652.8	644.5	639.6	634.7	633.4
10°	700.9	700.2	699.5	698.9	693.3	684.1	677.2	669.5	662.6	655.6	648.7
12.5°	730.2	729.5	728.8	726.7	724.6	719.7	712.0	703.7	695.3	680.7	673.1
15°	766.4	767.8	766.4	765.7	764.4	765.0	760.1	748.3	735.0	716.3	700.2
17.5°	814.5	813.1	812.4	815.1	814.5	817.9	816.6	801.2	781.0	751.1	723.2
20°	867.5	867.5	870.3	872.3	878.5	887.7	883.4	864.7	827.8	785.9	749.6
22.5°	930.9	932.2	935.0	933.6	943.4	958.0	959.4	933.0	884.9	827.0	776.2
25°	997.0	998.4	995.6	999.8	1015.9	1036.8	1040.9	1003.3	939.9	864.7	798.4
27.5°	1059.7	1061.1	1061.1	1066.7	1082.1	1117.5	1121.8	1079.9	995.6	897.4	814.5
30°	1121.0	1126.6	1128.0	1129.4	1152.4	1201.9	1210.9	1150.3	1044.5	921.8	825.6
32.5°	1198.3	1200.5	1203.2	1206.7	1233.3	1293.9	1293.9	1210.9	1075.8	937.1	827.8
35°	1281.3	1282.0	1288.3	1288.9	1326.6	1387.2	1375.3	1261.1	1098.0	933.6	812.4
37.5°	1331.5	1334.2	1340.5	1348.9	1388.6	1474.3	1447.2	1304.2	1102.3	910.7	777.5
40°	1393.5	1399.1	1405.3	1413.7	1472.8	1562.8	1507.8	1331.5	1084.8	865.4	725.3
42.5°	1460.3	1468.0	1477.8	1493.1	1563.5	1640.8	1553.7	1335.6	1045.1	814.5	663.3
45°	1535.6	1549.5	1560.7	1578.8	1658.2	1708.4	1581.6	1311.3	994.9	747.6	597.1
47.5°	1622.7	1633.9	1653.4	1672.8	1752.3	1754.4	1584.4	1263.8	926.6	680.7	526.7
50°	1729.9	1737.0	1766.2	1778.0	1852.6	1802.5	1564.1	1199.8	854.9	605.5	448.7
52.5°	1872.8	1882.6	1920.2	1938.3	1991.3	1868.0	1535.6	1130.2	772.6	521.1	368.6
55°	2155.0	2197.5	2223.9	2255.3	2289.4	2016.4	1523.1	1055.5	680.0	423.6	291.9
57.5°	2947.2	2933.3	2991.8	3062.8	3062.2	2355.6	1598.3	991.5	570.7	323.9	224.4
60°	4127.5	4140.7	4110.8	4153.3	4018.0	2776.5	1701.5	923.8	447.3	241.0	171.4
62.5°	5004.7	4928.0	4885.5	4835.3	4537.8	2822.5	1626.2	785.2	325.4	169.3	131.7
65°	5212.2	5122.4	5031.1	4935.6	4486.9	2544.5	1334.2	576.2	210.4	116.4	104.6
67.5°	5007.5	4863.2	4746.8	4648.6	4111.4	2109.0	975.4	354.0	120.5	94.1	89.2
70°	4476.5	4317.0	4128.8	4018.8	3462.1	1554.4	625.0	190.9	92.6	83.6	81.6
72.5°	3276.8	3145.8	2940.2	2814.1	2485.9	944.8	349.0	107.3	86.4	80.1	77.3
75°	1276.4	1208.2	1122.5	1129.4	1008.2	418.0	158.1	92.6	84.4	78.8	76.0
77.5°	219.5	213.9	197.8	197.8	225.1	152.5	105.2	93.4	83.6	77.3	72.4
80°	131.7	128.9	122.6	121.2	117.1	107.3	101.0	94.7	82.2	73.2	66.8
82.5°	86.4	82.9	80.8	80.1	87.0	94.1	94.7	94.1	78.0	63.4	54.3
85°	36.9	36.9	36.9	37.6	50.2	76.0	78.0	83.6	64.1	49.4	39.1
87.5°	6.3	7.7	7.7	8.4	9.0	16.7	20.9	27.2	21.6	20.9	18.9
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: P154793

CATALOG NUMBER: AVS-F03-LED-E-U-T2-8030

CANDELA DISTRIBUTION (continued):

	165°	175°	180°
0°	640.3	640.3	640.3
2.5°	622.9	621.5	621.5
5°	620.8	619.4	620.1
7.5°	629.1	626.3	627.0
10°	644.5	641.7	640.3
12.5°	663.9	660.5	660.5
15°	684.1	675.9	675.1
17.5°	700.9	690.5	689.1
20°	719.7	705.8	703.7
22.5°	737.1	718.3	715.5
25°	749.6	726.7	723.2
27.5°	755.2	728.1	725.3
30°	759.5	728.8	724.6
32.5°	755.2	722.5	719.1
35°	732.2	696.7	694.6
37.5°	692.5	652.8	650.1
40°	640.3	598.4	591.5
42.5°	573.4	534.4	526.7
45°	508.6	464.0	460.5
47.5°	439.0	396.5	398.5
50°	365.8	327.5	326.7
52.5°	296.1	262.7	260.6
55°	233.4	209.7	207.7
57.5°	184.7	172.1	170.1
60°	150.5	144.2	142.2
62.5°	121.2	119.2	118.4
65°	101.0	101.0	101.0
67.5°	87.8	88.5	88.5
70°	80.8	81.6	80.8
72.5°	78.0	80.1	80.1
75°	76.0	77.3	74.5
77.5°	74.5	75.2	70.4
80°	73.9	73.2	64.1
82.5°	64.1	62.0	54.3
85°	58.5	44.6	37.6
87.5°	29.9	20.9	16.1
90°	0.0	0.0	0.0

(END OF REPORT)