

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: LUMARK

Report Number: P961025

Luminaire Tested: **NAV-SB1D-830-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961025
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-830-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9162.5 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B1 - U0 - G3

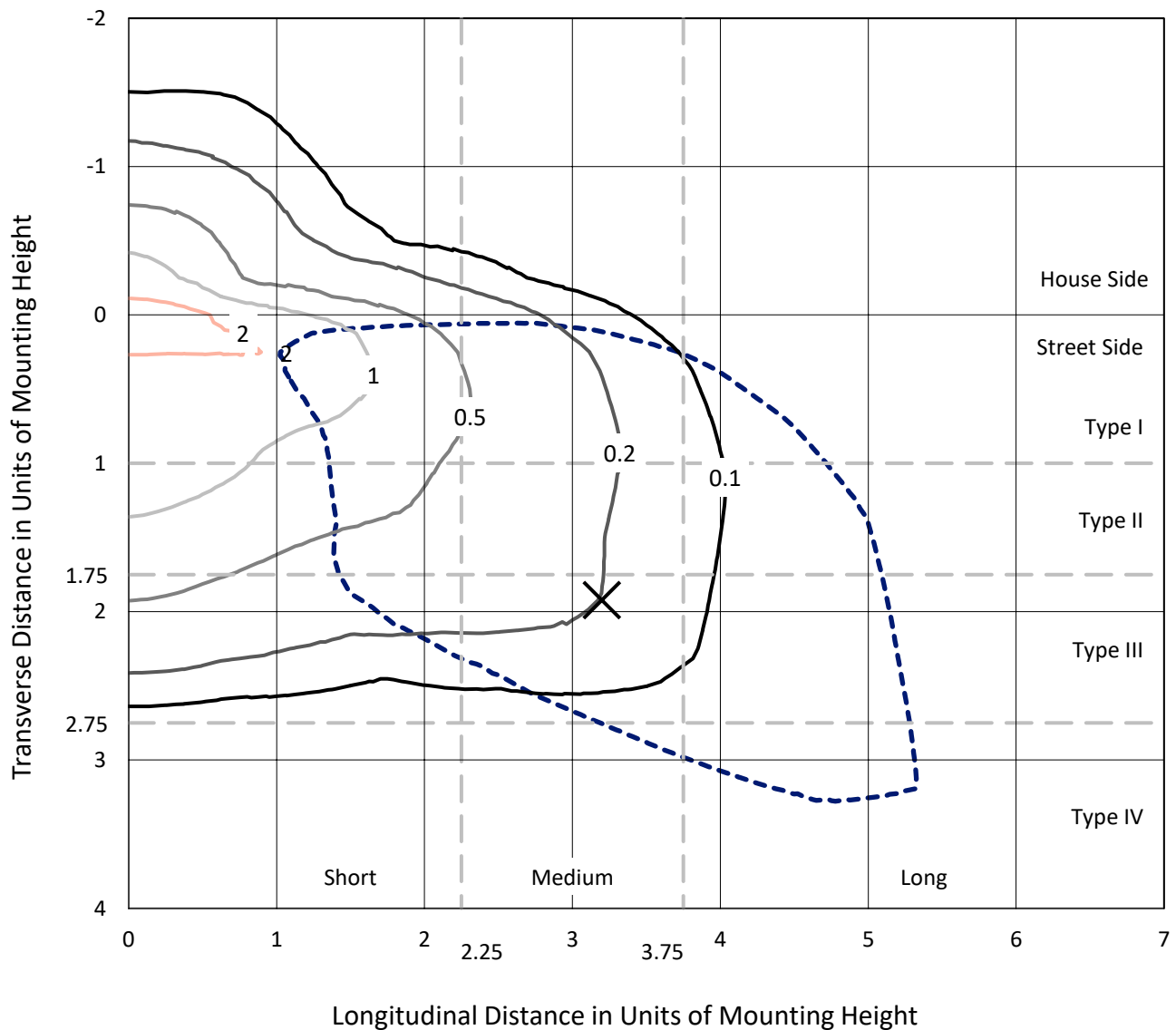
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

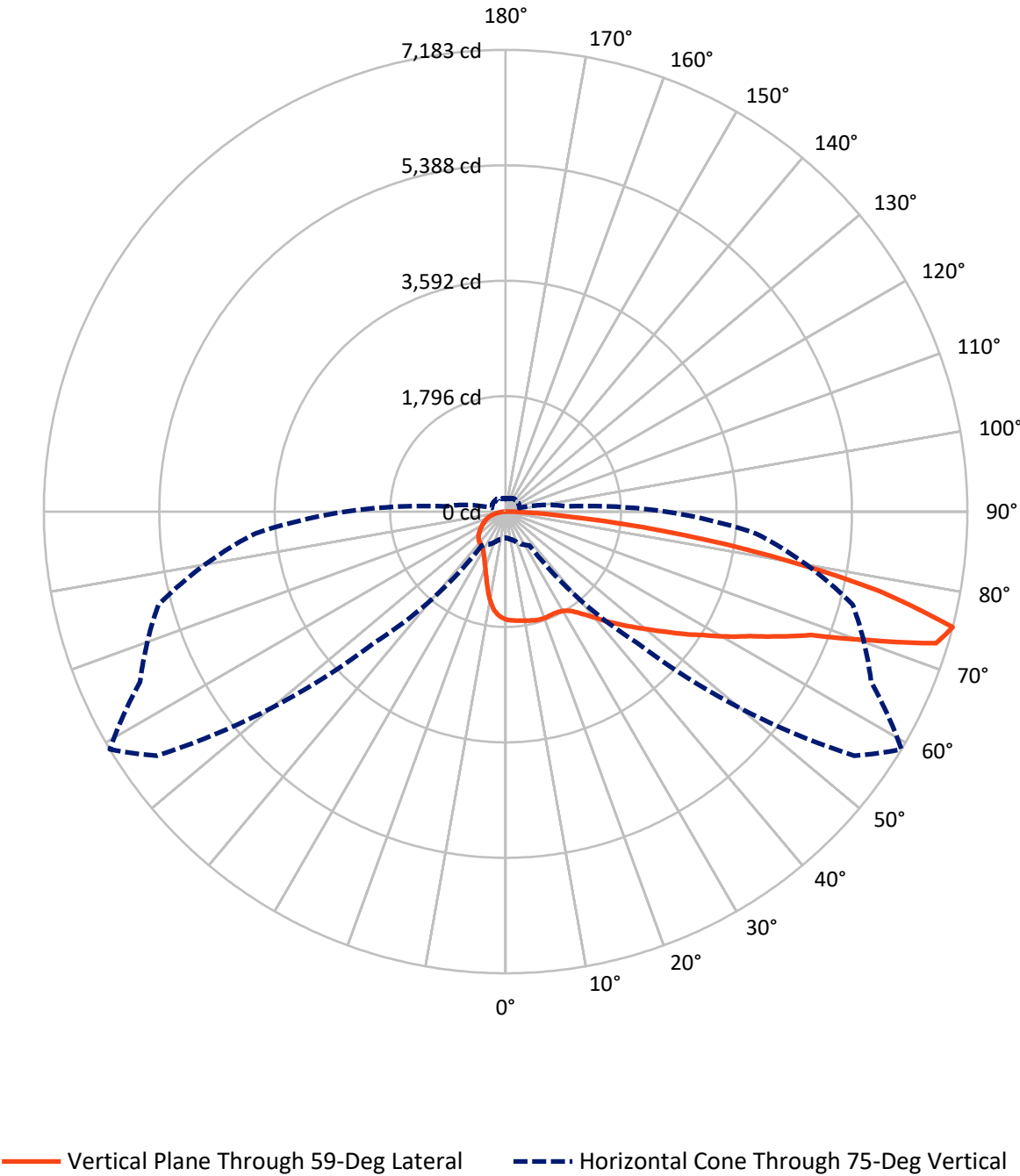
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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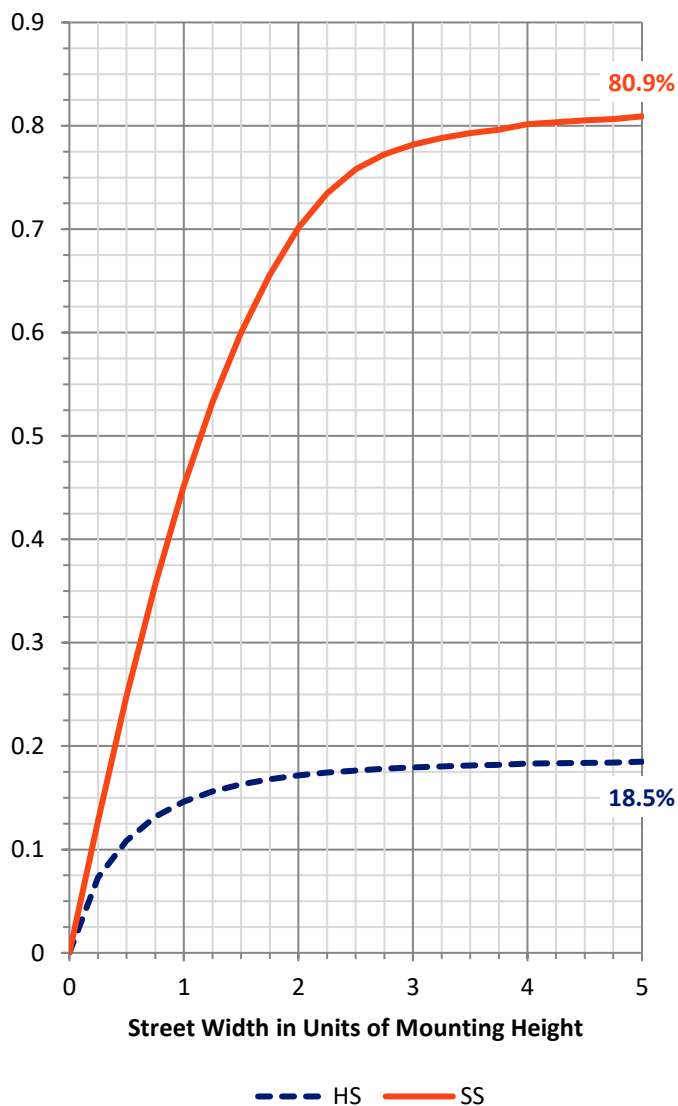
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1718.5	0.0	1718.5
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	7444.0	0.0	7444.0
	% Fixture	81.2	0.0	81.2
Total	Lumens	9162.5	0.0	9162.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.8	1.6
10°-20°	385.4	4.2
20°-30°	585.5	6.4
30°-40°	870.3	9.5
40°-50°	1294.2	14.1
50°-60°	1756.8	19.2
60°-70°	2144.7	23.4
70°-80°	1683.2	18.4
80°-90°	291.6	3.2
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°	9162.5	100.0
0°-180°	9162.5	100.0

Coefficient of Utilization



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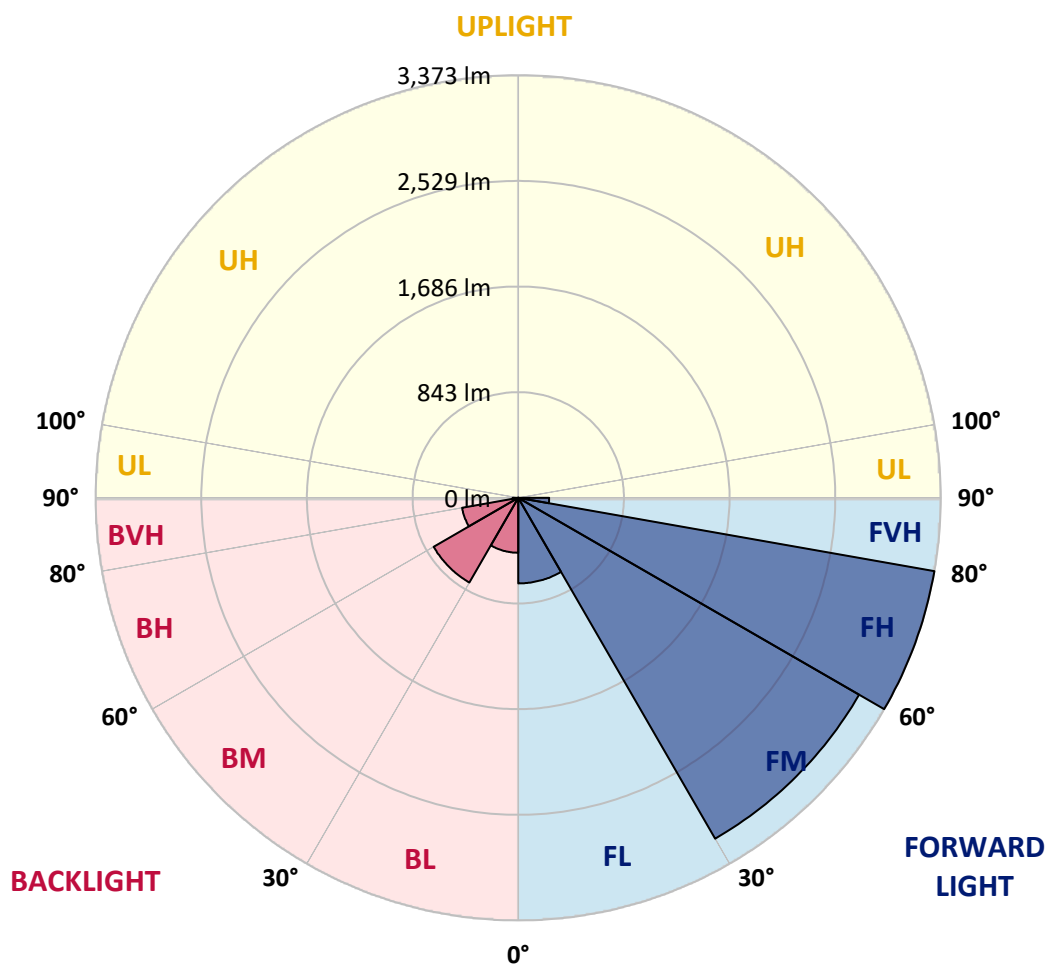
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	683.2	7.5			
FM	(30°-60°)	3141.3	34.3			
FH	(60°-80°)	3372.6	36.8			G2/5000
FVH	(80°-90°)	246.9	2.7			G3/500
BL	(0°-30°)	438.5	4.8	B1/500		
BM	(30°-60°)	780.0	8.5	B1/1000		
BH	(60°-80°)	455.3	5.0	B1/500		G1/500
BVH	(80°-90°)	44.6	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	1681.7	1681.7	1681.7	1681.7	1681.7	1681.7	1681.7	1681.7	1681.7	1681.7	1681.7
2.5°	1696.1	1690.1	1696.1	1693.6	1692.6	1690.6	1691.1	1694.5	1692.6	1695.0	1686.6
5°	1684.7	1681.3	1687.2	1685.7	1692.1	1693.1	1699.4	1703.4	1705.9	1706.4	1700.0
7.5°	1665.9	1662.6	1671.0	1677.8	1691.7	1695.6	1708.9	1715.2	1718.7	1724.7	1715.2
10°	1597.5	1596.0	1616.7	1642.8	1675.4	1695.6	1715.7	1726.6	1732.0	1747.8	1737.0
12.5°	1476.2	1478.2	1505.3	1555.5	1620.6	1685.7	1723.6	1739.4	1747.8	1767.5	1762.6
15°	1360.4	1359.9	1389.5	1443.2	1534.4	1642.4	1727.6	1754.7	1768.9	1798.1	1794.2
17.5°	1293.3	1291.4	1312.1	1353.0	1437.8	1575.7	1717.7	1763.1	1793.6	1830.1	1826.7
20°	1281.0	1277.0	1287.9	1308.1	1368.3	1502.9	1692.1	1763.1	1813.3	1860.7	1858.7
22.5°	1325.8	1319.5	1315.1	1312.6	1339.2	1442.7	1663.1	1757.2	1842.4	1904.6	1901.1
25°	1416.0	1406.2	1383.5	1361.4	1353.5	1415.6	1637.4	1755.7	1885.8	1963.7	1950.9
27.5°	1562.0	1549.7	1503.8	1450.6	1402.8	1429.4	1626.1	1764.5	1933.7	2026.3	2000.7
30°	1742.9	1729.6	1671.9	1590.1	1504.3	1480.6	1640.3	1790.7	1994.8	2109.6	2059.3
32.5°	1905.1	1890.2	1841.0	1757.7	1641.8	1569.4	1685.7	1840.5	2090.9	2225.4	2147.6
35°	2049.0	2031.8	1987.4	1910.5	1810.4	1694.1	1767.5	1928.7	2227.4	2413.7	2267.3
37.5°	2189.9	2169.7	2121.4	2040.1	1970.0	1860.2	1880.4	2042.1	2408.8	2642.4	2426.0
40°	2347.7	2318.5	2259.9	2179.6	2111.6	2054.9	2028.8	2181.1	2593.1	2897.7	2624.2
42.5°	2500.5	2472.8	2402.8	2334.3	2249.1	2232.8	2200.8	2343.7	2794.7	3178.2	2825.3
45°	2665.1	2632.1	2547.2	2460.5	2406.8	2351.1	2367.3	2506.3	2992.4	3464.1	3036.3
47.5°	2819.4	2782.4	2682.3	2585.8	2556.1	2450.7	2520.2	2685.3	3197.9	3753.9	3245.3
50°	2902.7	2866.2	2782.9	2695.6	2672.5	2573.4	2685.8	2882.0	3413.2	4042.7	3445.8
52.5°	2972.2	2932.7	2823.8	2775.5	2768.6	2706.9	2889.8	3106.7	3628.7	4298.0	3639.6
55°	3046.1	3002.2	2863.2	2819.9	2851.3	2856.8	3131.9	3361.5	3856.4	4546.9	3822.4
57.5°	3131.4	3075.6	2901.2	2857.3	2932.2	3032.3	3409.9	3625.7	4080.2	4777.6	3985.0
60°	3211.7	3155.5	2974.1	2916.9	3019.4	3235.8	3728.7	3945.6	4333.5	4983.1	4138.8
62.5°	3227.4	3181.1	3032.3	3031.7	3137.7	3473.4	4106.3	4268.4	4554.8	5186.2	4276.8
65°	2954.4	2925.4	2837.1	3027.3	3307.3	3815.5	4526.7	4681.5	4836.3	5363.6	4398.1
67.5°	2248.5	2252.5	2246.1	2613.3	3170.3	4306.9	5135.5	5123.7	5183.7	5562.8	4537.6
70°	1028.2	1051.3	1202.1	1804.0	2539.8	4363.6	6141.9	5988.7	5620.0	5820.6	4658.3
72.5°	555.4	573.3	634.9	873.9	1526.9	3879.5	6894.0	7003.0	6200.1	5994.1	4525.8
75°	407.6	417.5	460.3	555.4	641.2	2883.4	6624.5	7183.4	6272.6	5589.4	3908.1
77.5°	305.1	309.5	344.5	440.1	328.3	1520.1	5293.2	5949.2	5369.6	4592.3	2886.9
80°	221.3	226.2	252.4	330.3	230.2	556.0	3634.5	4175.7	3677.5	2927.3	1438.8
82.5°	152.8	154.8	166.2	224.8	160.7	215.9	2062.3	2448.7	2052.9	1027.2	388.4
85°	92.1	94.6	99.5	131.1	91.2	102.5	890.2	920.8	613.7	245.5	120.7
87.5°	37.9	40.4	44.4	55.2	36.0	28.6	146.9	184.3	114.8	72.0	37.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1681.7	1681.7	1681.7	1681.7	1681.7	1681.7	1681.7	1681.7	1681.7	1681.7	1681.7
2.5°	1684.2	1680.8	1671.4	1658.6	1646.8	1632.0	1625.5	1620.1	1615.2	1605.9	1601.5
5°	1694.5	1685.2	1660.1	1627.5	1590.6	1550.1	1510.7	1483.6	1460.4	1443.2	1428.8
7.5°	1710.3	1692.6	1646.8	1580.2	1495.5	1408.7	1330.3	1274.6	1232.8	1217.5	1190.8
10°	1726.6	1705.4	1625.5	1508.3	1361.8	1228.3	1124.3	1067.1	1033.6	1022.7	1006.0
12.5°	1745.8	1714.8	1592.5	1408.1	1212.5	1066.1	975.4	941.9	924.7	918.7	920.2
15°	1774.0	1722.6	1542.7	1283.0	1070.1	947.8	889.2	866.0	857.1	856.7	858.6
17.5°	1795.1	1724.2	1465.3	1148.9	960.6	876.4	828.1	819.2	825.1	833.9	837.4
20°	1818.8	1710.8	1363.9	1026.7	883.8	813.7	793.6	799.5	813.7	826.6	831.0
22.5°	1835.6	1686.6	1241.1	931.5	817.2	777.8	776.8	789.1	797.0	803.4	806.9
25°	1850.3	1645.7	1111.0	851.7	762.5	756.1	766.9	763.0	757.6	763.0	766.5
27.5°	1861.2	1581.2	994.7	781.8	724.1	741.3	734.9	726.0	725.5	728.5	733.4
30°	1857.7	1495.0	899.0	715.1	697.0	713.7	698.4	697.0	695.5	697.0	702.3
32.5°	1857.7	1396.9	825.6	669.3	679.7	673.3	671.8	668.4	662.5	661.9	668.4
35°	1868.1	1298.8	762.5	644.7	665.4	650.2	651.1	642.8	630.4	624.5	630.4
37.5°	1889.3	1220.0	699.9	632.8	640.3	639.8	635.8	621.6	599.8	581.1	587.5
40°	1940.5	1196.8	657.0	627.4	628.4	634.4	624.0	596.4	547.1	516.6	520.5
42.5°	2020.9	1235.6	647.7	614.2	620.5	626.5	606.3	542.2	507.2	488.9	488.9
45°	2122.9	1303.7	667.9	594.9	601.8	612.1	552.1	521.5	505.7	506.2	508.7
47.5°	2252.0	1375.1	705.3	578.2	574.7	580.7	516.1	497.3	475.6	481.0	494.9
50°	2401.4	1447.6	740.8	555.4	544.7	525.4	492.9	475.2	447.5	434.7	438.2
52.5°	2563.0	1517.6	755.1	527.9	512.1	489.9	477.1	455.4	421.9	400.7	400.3
55°	2716.4	1581.2	739.3	494.9	479.6	462.4	460.3	447.1	411.0	381.5	381.5
57.5°	2861.3	1634.5	699.9	461.4	446.6	436.2	449.6	443.1	397.8	359.8	357.8
60°	2984.0	1671.0	642.8	427.3	417.0	411.5	431.7	429.8	379.0	336.6	335.2
62.5°	3081.6	1685.2	579.6	394.8	392.4	382.5	407.1	407.1	355.4	314.0	312.5
65°	3157.9	1671.4	515.6	362.7	367.7	352.9	377.1	374.1	330.3	293.8	291.8
67.5°	3225.5	1626.1	444.5	331.2	342.6	323.8	345.5	338.7	302.7	273.6	271.6
70°	3255.6	1520.6	363.8	299.7	313.4	295.2	314.0	301.1	271.6	251.8	247.9
72.5°	3014.0	1263.8	286.4	266.7	278.5	263.7	279.9	265.2	238.1	229.2	221.8
75°	2493.5	948.3	220.3	230.6	239.5	228.2	239.0	228.2	203.6	210.0	191.8
77.5°	1810.9	640.3	168.6	192.7	196.7	190.8	200.1	187.8	165.6	164.1	156.7
80°	900.6	375.0	132.1	152.3	150.8	146.9	157.7	151.8	133.0	140.9	139.5
82.5°	260.8	160.7	96.1	106.9	104.0	105.0	112.9	115.8	173.5	172.0	176.0
85°	81.8	63.1	57.7	59.7	56.7	58.1	66.5	132.1	122.3	71.4	77.4
87.5°	21.2	21.7	14.2	15.3	15.8	18.8	21.2	80.4	38.4	25.1	26.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)