

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: P963143

Luminaire Tested: **NAV-SB2D-830-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963143
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-830-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

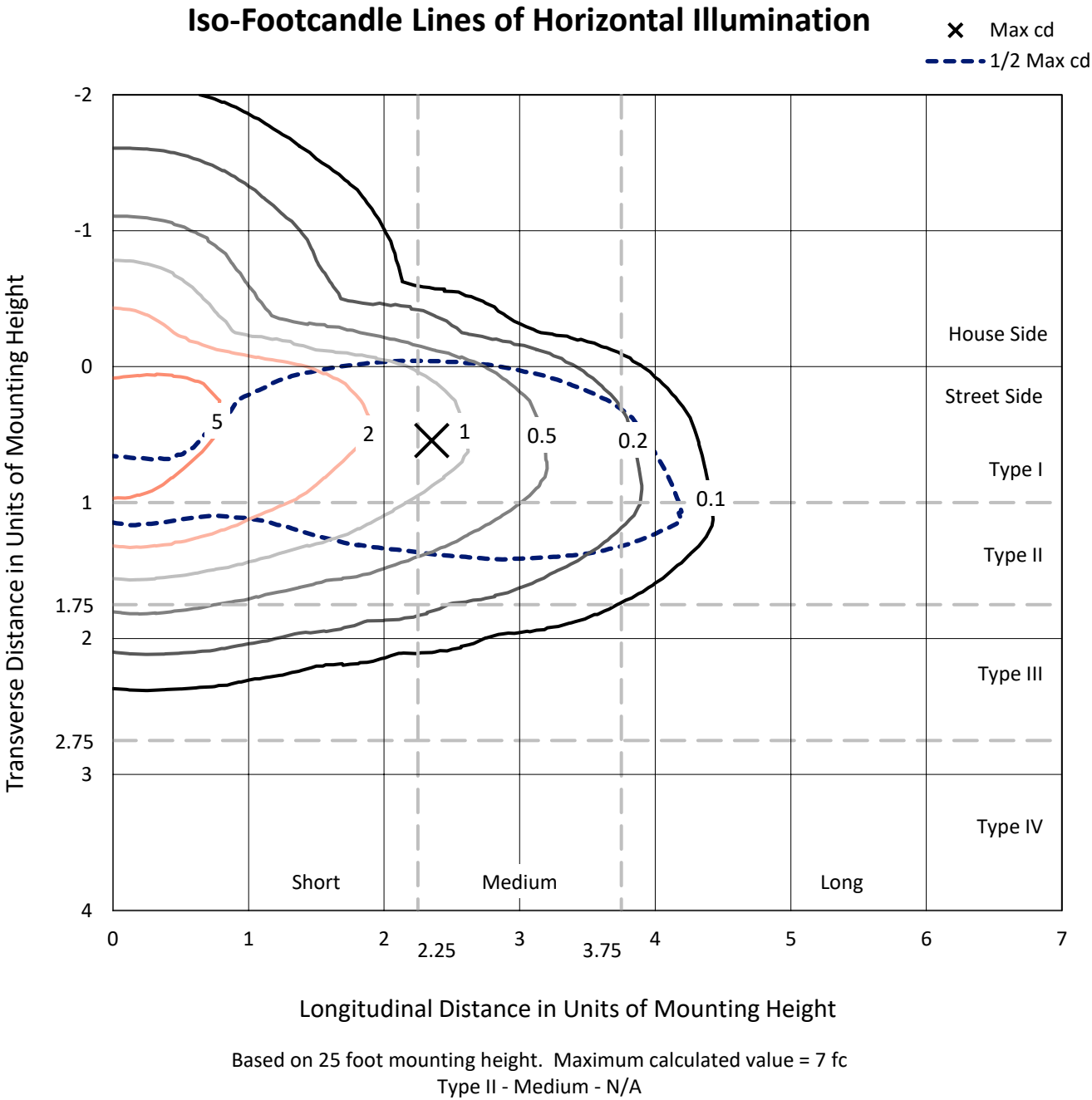
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19090.6 lumens
Efficiency: N/A
Efficacy: 129.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 147.6
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

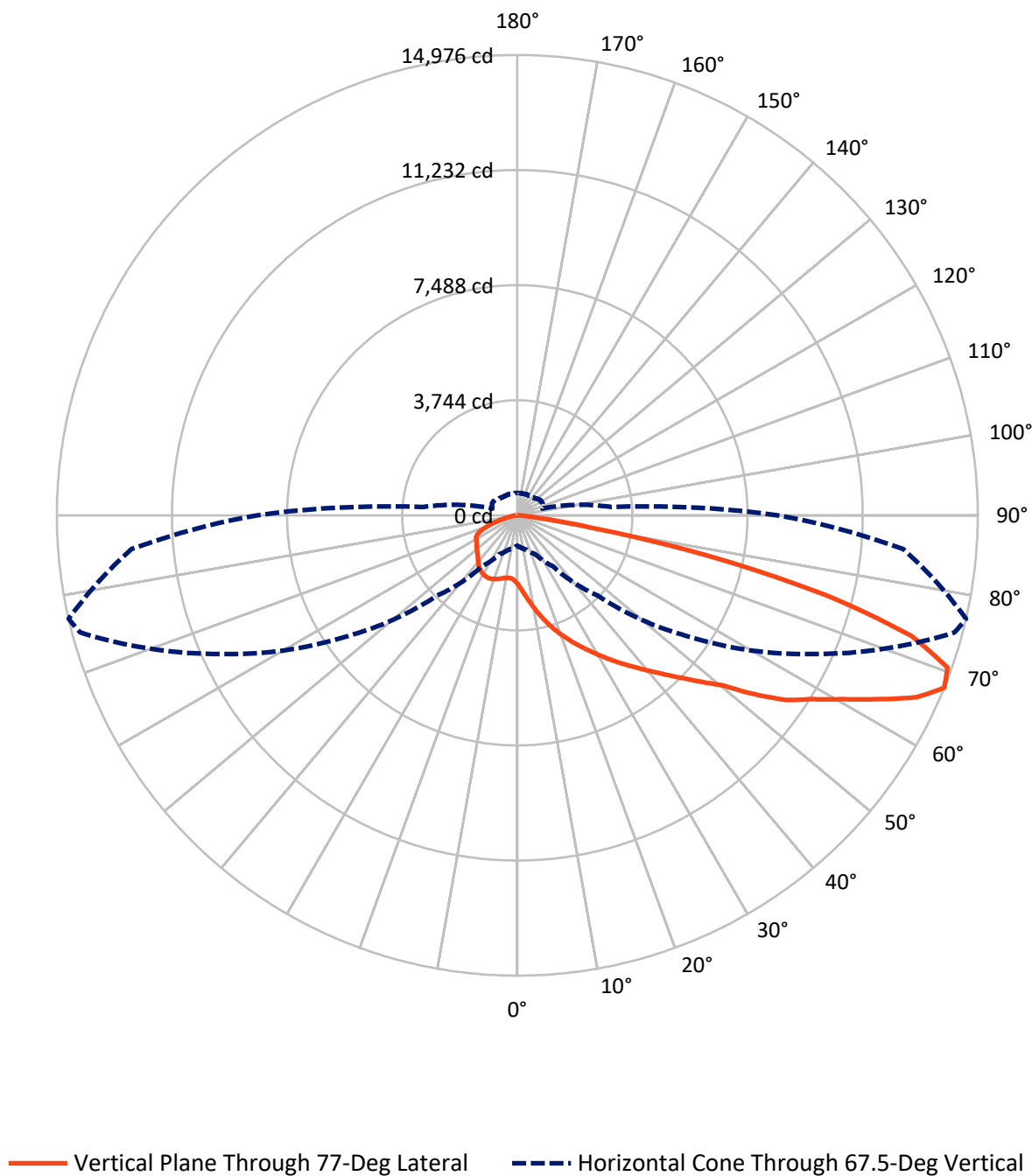


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Luminous Intensity Polar Plot



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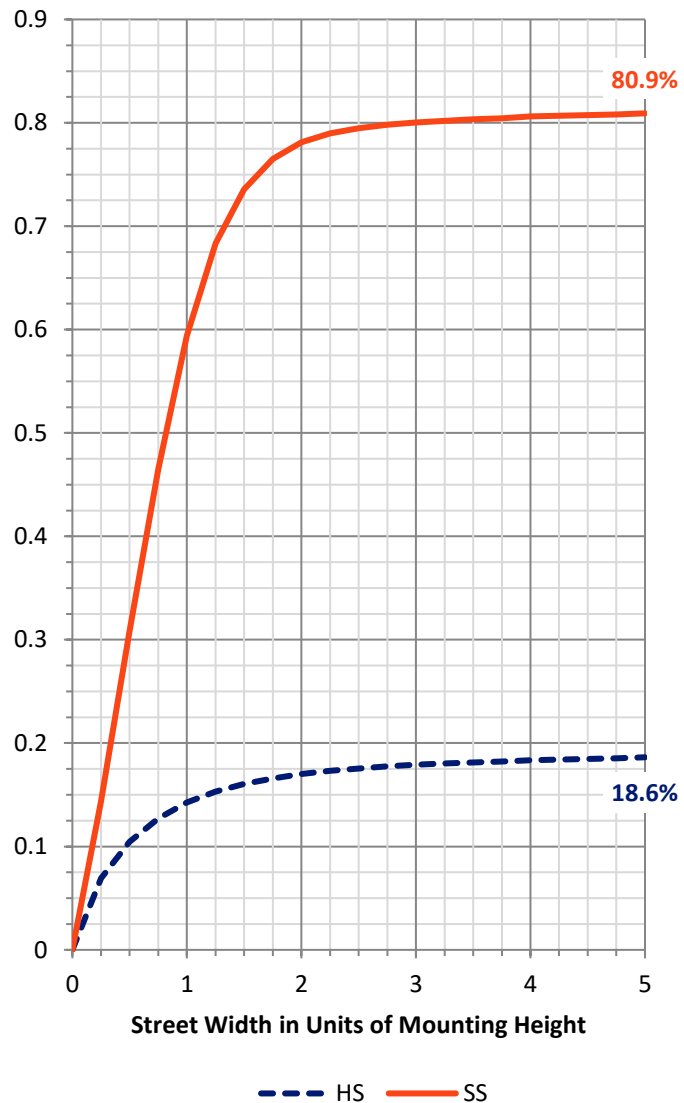
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3611.2	0.0	3611.2
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	15479.4	0.0	15479.4
	% Fixture	81.1	0.0	81.1
Total	Lumens	19090.6	0.0	19090.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.1	1.3
10°-20°	862.5	4.5
20°-30°	1628.6	8.5
30°-40°	2623.6	13.7
40°-50°	3588.6	18.8
50°-60°	4048.0	21.2
60°-70°	3778.3	19.8
70°-80°	2071.1	10.8
80°-90°	249.8	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°	19090.6	100.0
0°-180°	19090.6	100.0

Coefficient of Utilization



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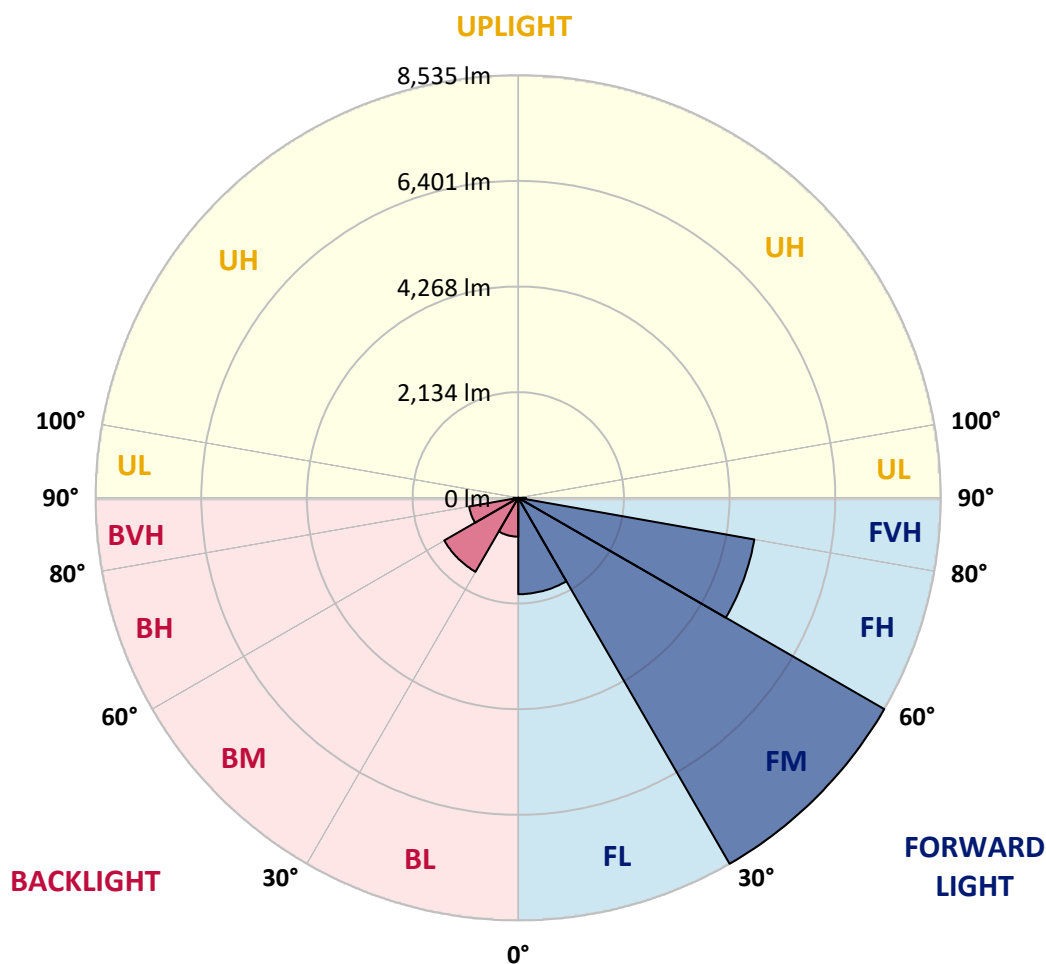
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1946.0	10.2			
FM	(30°-60°)	8535.2	44.7			
FH	(60°-80°)	4842.0	25.4			G2/5000
FVH	(80°-90°)	156.2	0.8			G2/225
BL	(0°-30°)	785.2	4.1	B2/1000		
BM	(30°-60°)	1725.0	9.0	B2/2500		
BH	(60°-80°)	1007.5	5.3	B3/2500		G3/2500
BVH	(80°-90°)	93.6	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2239.9	2239.9	2239.9	2239.9	2239.9	2239.9	2239.9	2239.9	2239.9	2239.9	2239.9
2.5°	2804.6	2824.3	2799.7	2799.7	2716.9	2673.5	2590.8	2527.6	2414.4	2394.6	2319.8
5°	3315.1	3339.7	3305.2	3290.5	3192.9	3103.2	2964.2	2827.3	2625.2	2604.5	2428.1
7.5°	3710.2	3741.8	3711.2	3695.4	3608.7	3508.2	3345.6	3154.4	2869.6	2829.2	2574.0
10°	4032.5	4037.4	4027.5	4033.5	3965.4	3882.7	3716.1	3493.4	3137.6	3082.5	2750.4
12.5°	4214.8	4237.5	4257.1	4292.6	4280.8	4229.6	4079.7	3813.7	3421.4	3350.5	2942.6
15°	4300.5	4340.0	4384.2	4466.0	4532.0	4544.8	4430.6	4157.6	3710.2	3624.5	3136.7
17.5°	4331.0	4368.4	4438.5	4556.7	4698.6	4794.2	4743.0	4491.7	3996.0	3897.5	3340.7
20°	4485.8	4496.6	4539.0	4651.3	4805.0	4963.7	5002.1	4812.9	4278.9	4167.4	3551.5
22.5°	4816.9	4795.2	4807.0	4858.3	4968.6	5122.3	5210.1	5096.7	4569.6	4441.4	3764.4
25°	5363.8	5300.7	5237.6	5178.5	5234.7	5321.4	5420.9	5380.5	4874.0	4711.4	3979.3
27.5°	6054.6	5977.7	5838.8	5644.7	5576.6	5607.2	5651.5	5643.6	5155.9	4991.3	4201.0
30°	6734.6	6644.9	6479.3	6198.5	6019.1	5938.3	5904.8	5882.2	5462.3	5287.0	4424.6
32.5°	7277.5	7206.6	7044.0	6729.6	6469.5	6331.5	6220.1	6139.3	5782.6	5607.2	4661.2
35°	7752.5	7686.5	7500.2	7157.3	6874.5	6727.7	6581.8	6409.3	6115.7	5938.3	4915.4
37.5°	8186.2	8120.0	7864.8	7508.1	7223.4	7121.8	6991.7	6699.1	6449.7	6282.2	5184.4
40°	8460.0	8445.3	8206.8	7802.8	7507.1	7456.9	7413.5	7035.1	6820.2	6664.6	5480.1
42.5°	8530.0	8562.5	8373.3	8041.2	7759.5	7719.0	7820.5	7415.5	7236.2	7087.4	5815.1
45°	8361.5	8455.1	8331.0	8105.3	7938.7	7917.1	8181.1	7831.3	7696.3	7560.4	6219.2
47.5°	7934.8	8093.5	8042.3	8010.7	7987.1	8080.7	8498.5	8272.9	8217.6	8099.4	6680.3
50°	7073.5	7374.2	7463.7	7662.8	7891.5	8207.8	8787.2	8754.7	8826.7	8707.4	7242.0
52.5°	5584.5	5998.4	6518.7	7017.4	7597.8	8165.5	9104.6	9446.5	9750.0	9685.0	8134.9
55°	4609.9	4796.2	5196.2	6110.7	7028.2	7987.1	9247.4	10005.2	10666.5	10608.3	8811.9
57.5°	3861.0	4027.5	4273.8	5037.6	6166.9	7582.0	9336.1	10346.2	11294.3	11288.3	9480.0
60°	3057.9	3234.3	3486.5	4027.5	5160.8	6882.4	9316.4	10734.5	12095.4	12144.7	10295.0
62.5°	2151.3	2345.4	2625.2	3129.7	4133.0	5975.7	8914.3	11015.4	13038.5	13172.5	11275.5
65°	1414.1	1542.2	1753.2	2188.7	3079.5	4810.0	8146.7	11051.8	14047.5	14274.3	12195.9
67.5°	991.4	1040.7	1164.8	1401.3	2030.0	3688.6	6923.8	10674.3	14720.6	14975.9	12595.0
70°	773.6	798.2	861.3	955.9	1275.2	2480.4	5305.6	9692.9	14576.7	14842.8	12178.1
72.5°	668.1	691.8	715.4	727.2	855.4	1531.4	3594.0	8104.4	13221.8	13402.1	10588.7
75°	606.1	611.9	631.7	627.7	652.4	993.3	2074.4	5904.8	10431.9	10369.8	7816.5
77.5°	509.5	517.3	549.9	545.0	579.4	679.0	1077.1	3810.7	6763.2	6341.4	4350.7
80°	431.6	435.5	471.1	465.1	503.6	491.7	549.9	1942.3	2868.7	2430.1	1254.5
82.5°	149.8	185.2	359.7	370.5	384.4	297.6	317.3	792.3	876.1	671.1	263.1
85°	72.9	77.9	183.3	260.1	259.2	149.8	154.7	282.8	275.9	216.8	87.7
87.5°	11.8	14.8	21.7	101.5	80.8	39.5	53.2	55.1	57.2	49.3	19.7
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°	2239.9	2239.9	2239.9	2239.9	2239.9	2239.9	2239.9	2239.9	2239.9	2239.9	2239.9
2.5°	2264.5	2215.3	2111.8	2016.3	1941.4	1869.4	1829.0	1794.5	1774.8	1770.9	1770.9
5°	2325.6	2224.1	2036.0	1877.3	1773.8	1697.0	1656.5	1630.9	1618.1	1610.2	1609.2
7.5°	2413.4	2264.5	1996.5	1816.2	1707.8	1652.6	1631.9	1628.0	1627.0	1628.0	1630.9
10°	2534.6	2330.5	1992.6	1801.4	1710.7	1680.2	1679.2	1680.2	1684.2	1685.1	1686.1
12.5°	2665.6	2398.6	2008.4	1814.2	1748.1	1731.4	1728.5	1727.5	1730.4	1732.5	1733.4
15°	2808.5	2488.3	2034.9	1841.8	1789.5	1771.8	1768.8	1763.0	1762.0	1761.0	1760.0
17.5°	2955.4	2577.0	2064.6	1871.3	1816.2	1791.5	1780.7	1766.9	1756.0	1753.2	1756.0
20°	3104.2	2664.7	2085.2	1886.1	1818.1	1783.7	1762.0	1738.3	1719.6	1708.8	1712.7
22.5°	3262.8	2756.3	2098.0	1882.2	1800.4	1753.2	1713.7	1686.1	1657.5	1638.8	1639.8
25°	3417.6	2836.1	2097.0	1861.5	1766.0	1705.8	1655.6	1620.1	1580.7	1561.0	1561.0
27.5°	3566.4	2908.0	2072.4	1825.0	1716.7	1649.6	1589.6	1547.1	1508.7	1490.0	1489.0
30°	3720.0	2968.2	2034.0	1771.8	1658.6	1584.6	1518.5	1482.1	1447.6	1429.9	1428.8
32.5°	3872.9	3023.3	1979.8	1705.8	1591.5	1520.6	1455.5	1422.0	1401.3	1401.3	1402.3
35°	4034.4	3061.8	1907.8	1628.9	1520.6	1452.5	1401.3	1381.6	1379.6	1367.8	1364.9
37.5°	4204.9	3086.4	1820.1	1550.1	1450.6	1386.5	1370.7	1347.2	1327.4	1301.8	1297.9
40°	4384.2	3111.1	1714.7	1468.3	1376.7	1341.2	1334.3	1302.8	1246.6	1183.6	1174.6
42.5°	4602.0	3127.8	1605.3	1386.5	1298.8	1287.0	1296.8	1242.6	1153.0	1105.7	1106.7
45°	4854.3	3155.4	1504.8	1305.7	1219.0	1219.0	1260.3	1189.4	1115.5	1086.0	1090.9
47.5°	5181.5	3219.4	1411.1	1217.0	1145.1	1164.8	1179.6	1125.3	1084.0	1047.6	1046.5
50°	5654.5	3373.2	1314.6	1127.4	1089.0	1128.3	1107.6	1076.1	1027.9	998.2	995.3
52.5°	6241.8	3463.9	1228.9	1046.5	1040.7	1080.0	1050.5	1020.9	984.5	945.0	937.2
55°	6641.9	3480.6	1156.9	987.4	1008.1	1004.2	993.3	966.7	947.0	894.8	895.7
57.5°	7089.3	3514.1	1097.8	951.9	987.4	944.0	940.1	917.5	891.9	856.4	844.5
60°	7624.5	3566.4	1046.5	938.2	969.6	904.7	884.9	876.1	850.4	832.7	837.6
62.5°	8207.8	3613.6	994.4	940.1	948.9	866.2	836.6	833.7	817.9	812.0	812.0
65°	8605.9	3484.6	929.3	938.2	916.5	826.8	789.4	788.3	775.5	773.6	772.5
67.5°	8467.0	3075.6	841.5	910.5	882.9	787.4	746.0	742.0	725.3	726.3	726.3
70°	7771.2	2492.2	720.4	842.6	841.5	751.9	700.7	687.9	665.2	669.1	673.0
72.5°	6466.5	1846.7	557.8	729.2	775.5	719.3	648.4	627.7	599.1	603.1	602.1
75°	4670.0	1255.4	406.0	554.8	675.1	680.9	597.2	561.7	527.3	533.1	535.0
77.5°	2389.7	711.5	298.6	382.3	530.1	618.9	550.8	503.6	495.7	550.8	542.9
80°	779.5	356.7	206.9	268.0	347.9	506.6	482.9	428.7	426.7	439.5	377.4
82.5°	232.6	150.8	133.0	176.4	192.2	388.3	416.9	324.2	278.9	293.7	303.5
85°	79.8	72.9	75.8	87.7	91.6	227.7	291.7	214.8	203.1	223.7	220.8
87.5°	18.8	25.6	21.7	19.7	19.7	55.1	113.4	89.7	124.1	82.8	79.8
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)