

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: P966832

Luminaire Tested: **NAV-SB4C-830-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966832
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-SB4C-830-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28156.7 lumens
Efficiency: N/A
Efficacy: 140.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 200.7
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



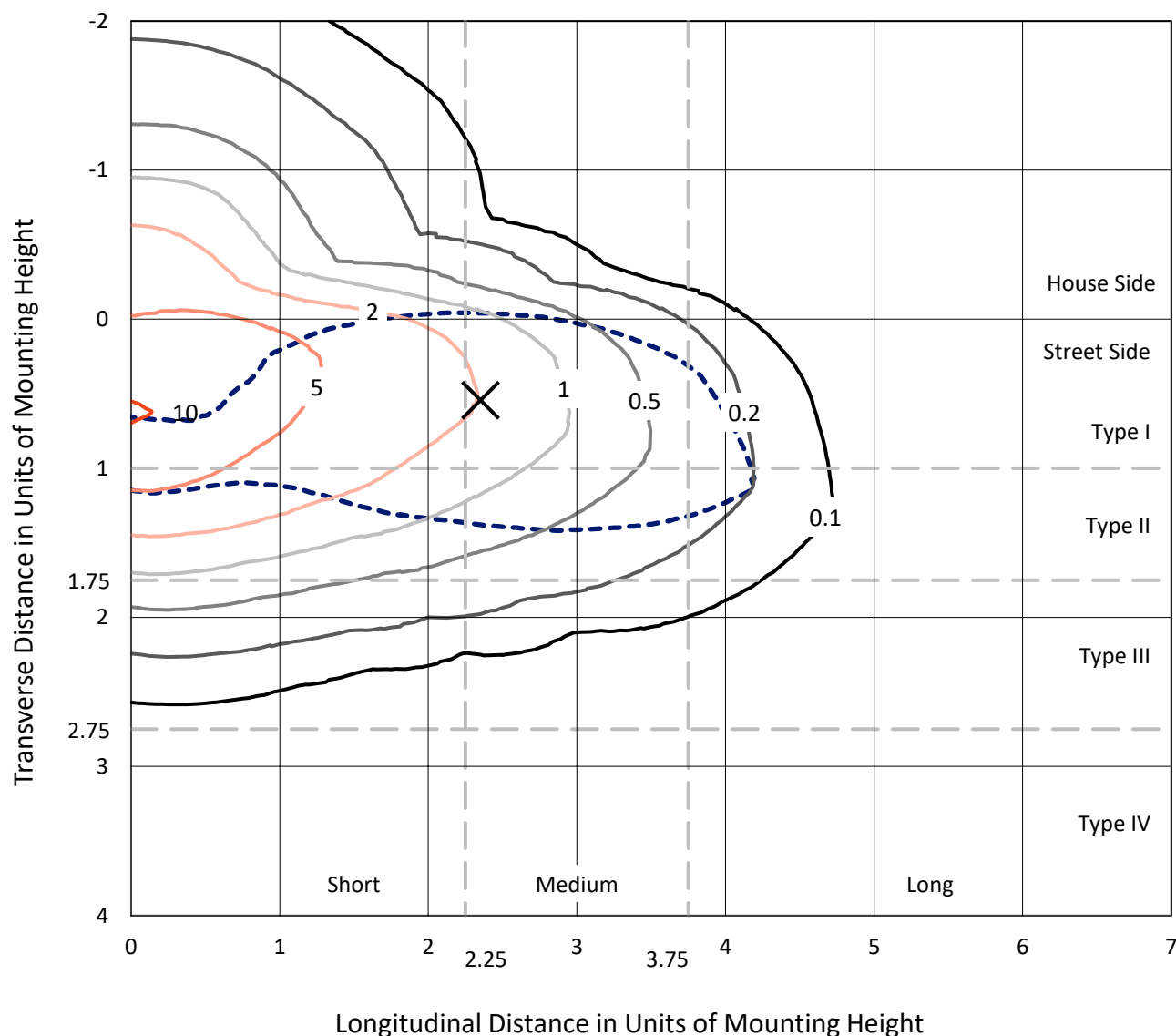
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

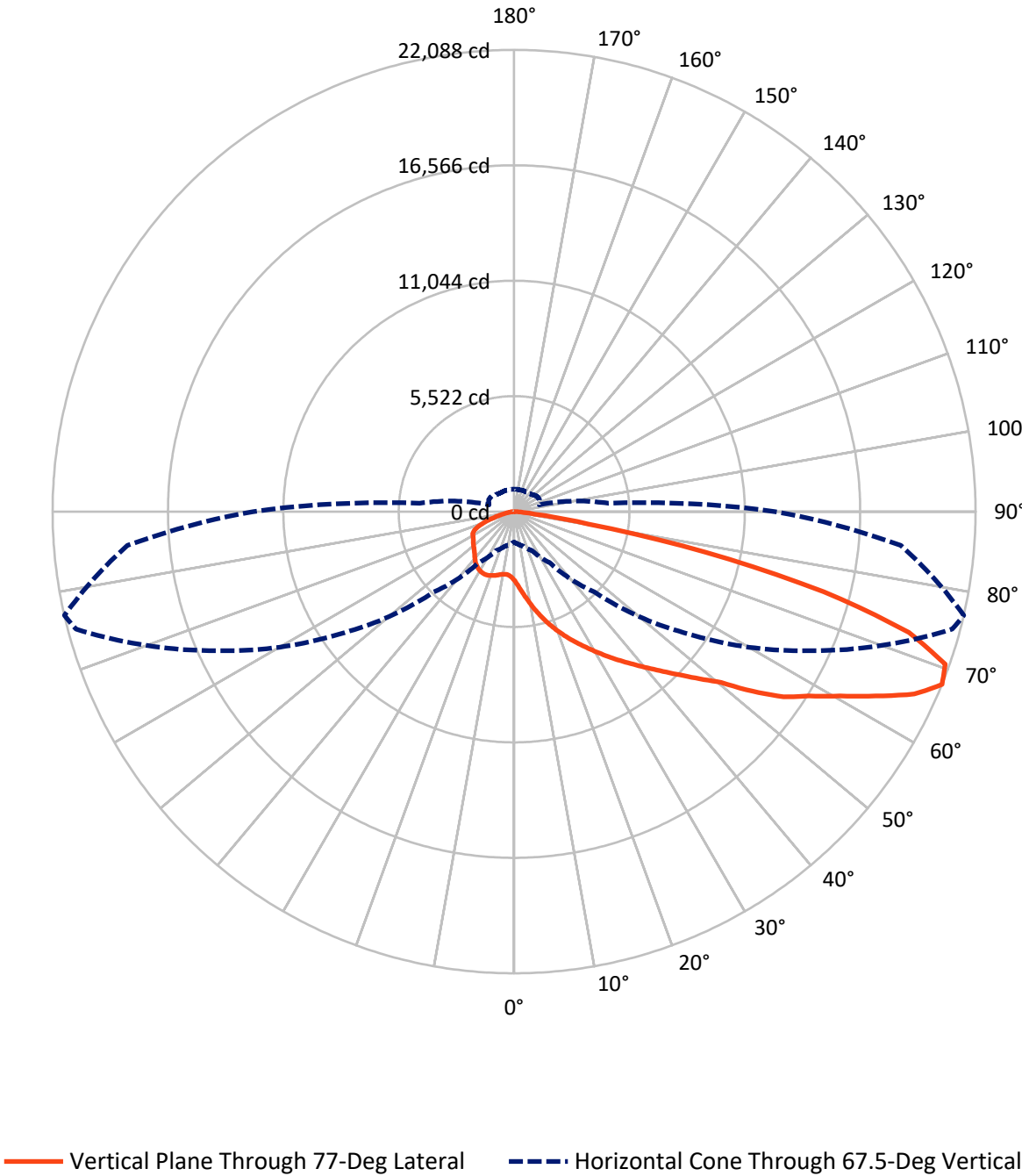
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.3 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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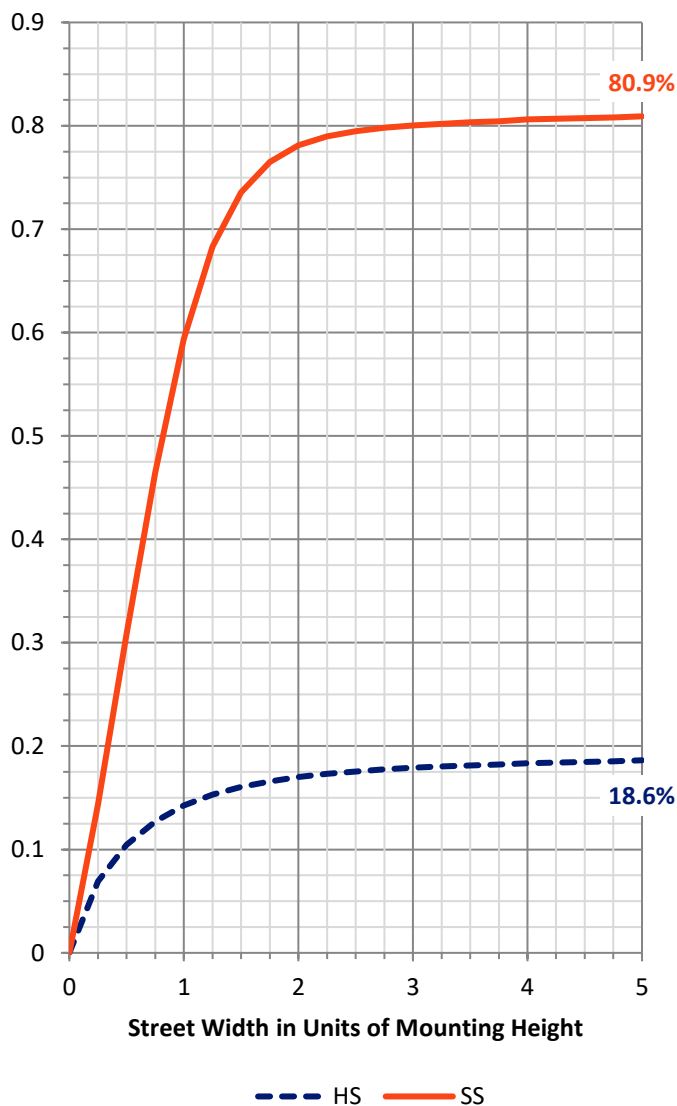
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5326.1	0.0	5326.1
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	22830.6	0.0	22830.6
	% Fixture	81.1	0.0	81.1
Total	Lumens	28156.7	0.0	28156.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	354.1	1.3
10°-20°	1272.2	4.5
20°-30°	2402.0	8.5
30°-40°	3869.5	13.7
40°-50°	5292.8	18.8
50°-60°	5970.3	21.2
60°-70°	5572.6	19.8
70°-80°	3054.7	10.8
80°-90°	368.5	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°	28156.7	100.0
0°-180°	28156.7	100.0

Coefficient of Utilization



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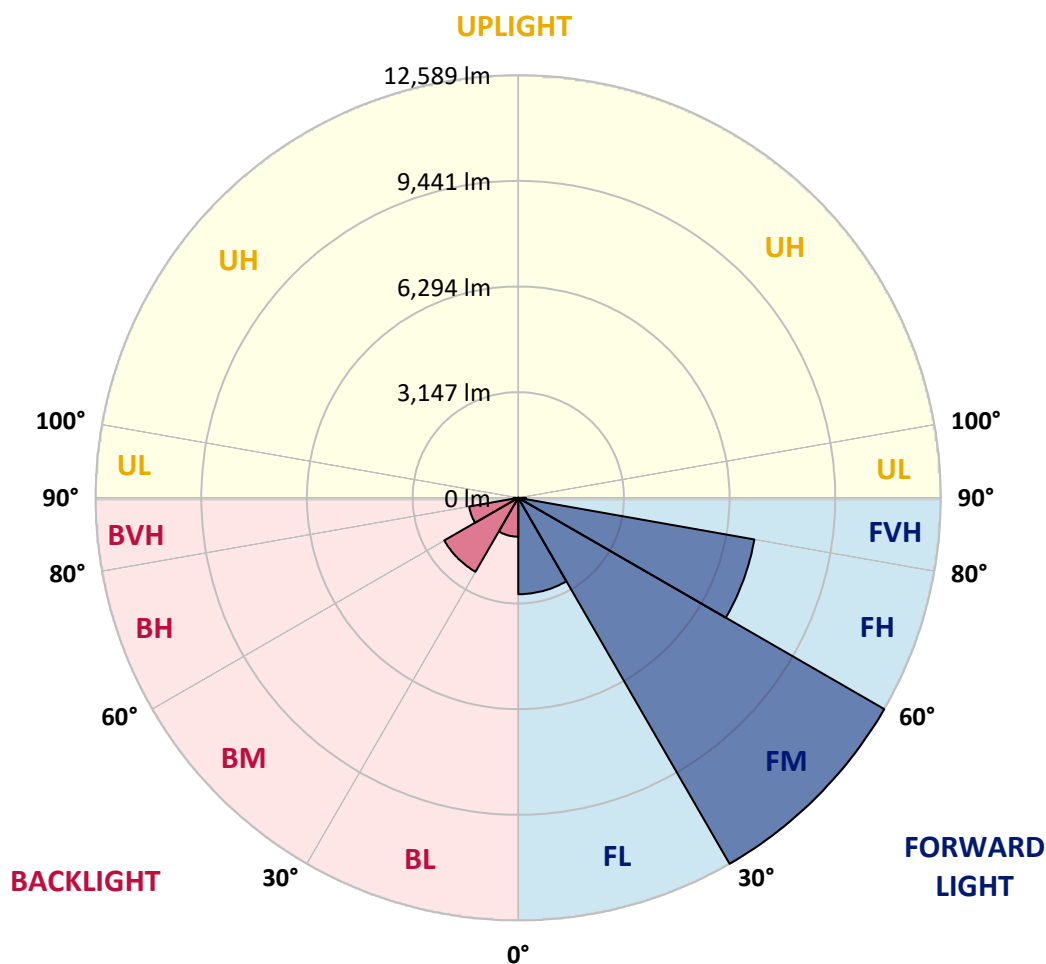
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2870.2	10.2			
FM	(30°-60°)	12588.6	44.7			
FH	(60°-80°)	7141.4	25.4			G3/7500
FVH	(80°-90°)	230.4	0.8			G3/500
BL	(0°-30°)	1158.0	4.1	B3/2500		
BM	(30°-60°)	2544.2	9.0	B3/5000		
BH	(60°-80°)	1485.9	5.3	B3/2500		G3/2500
BVH	(80°-90°)	138.0	0.5			G2/225
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°	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7
2.5°	4136.5	4165.6	4129.2	4129.2	4007.1	3943.2	3821.1	3728.0	3561.0	3531.8	3421.3
5°	4889.4	4925.7	4874.8	4853.1	4709.2	4576.8	4371.9	4169.9	3871.9	3841.4	3581.2
7.5°	5472.2	5518.7	5473.6	5450.4	5322.5	5174.2	4934.5	4652.5	4232.4	4172.8	3796.4
10°	5947.5	5954.7	5940.2	5948.9	5848.6	5726.6	5480.9	5152.5	4627.8	4546.4	4056.5
12.5°	6216.3	6249.7	6278.8	6331.2	6313.7	6238.2	6017.3	5624.8	5046.4	4941.7	4340.0
15°	6342.8	6400.9	6466.3	6587.0	6684.3	6703.3	6534.7	6132.1	5472.2	5345.8	4626.3
17.5°	6387.9	6443.0	6546.3	6720.7	6930.0	7071.0	6995.4	6624.8	5893.6	5748.3	4927.2
20°	6616.1	6632.1	6694.5	6860.2	7087.0	7321.0	7377.6	7098.5	6310.8	6146.6	5238.2
22.5°	7104.4	7072.4	7089.8	7165.5	7328.2	7555.0	7684.3	7517.1	6739.6	6550.7	5552.1
25°	7911.1	7818.1	7725.0	7637.8	7720.6	7848.5	7995.3	7935.8	7188.7	6948.9	5868.9
27.5°	8929.9	8816.5	8611.6	8325.3	8225.0	8270.0	8335.5	8323.8	7604.4	7361.7	6196.0
30°	9932.8	9800.5	9556.4	9142.1	8877.6	8758.4	8709.0	8675.6	8056.4	7797.7	6526.0
32.5°	10733.6	10628.9	10389.2	9925.5	9541.8	9338.4	9174.1	9055.0	8528.7	8270.0	6874.8
35°	11434.2	11336.8	11062.1	10556.3	10139.2	9922.6	9707.5	9453.2	9020.0	8758.4	7249.7
37.5°	12073.7	11976.3	11599.9	11073.7	10653.6	10504.0	10312.1	9880.5	9512.7	9265.7	7646.5
40°	12477.7	12455.9	12104.2	11508.3	11072.3	10998.1	10934.2	10376.1	10059.2	9829.5	8082.5
42.5°	12581.0	12628.9	12349.8	11860.1	11444.3	11384.8	11534.4	10937.2	10672.6	10453.2	8576.7
45°	12332.4	12470.5	12287.4	11954.5	11708.9	11676.9	12066.4	11550.4	11351.4	11150.8	9172.6
47.5°	11703.0	11937.0	11861.5	11815.0	11780.1	11918.2	12534.4	12201.6	12120.2	11945.8	9852.8
50°	10432.8	10876.1	11008.3	11302.0	11639.1	12105.7	12960.3	12912.3	13018.4	12842.5	10681.3
52.5°	8236.6	8847.1	9614.5	10349.9	11206.0	12043.1	13428.3	13932.6	14380.3	14284.4	11998.1
55°	6799.1	7073.8	7663.9	9012.7	10365.9	11780.1	13639.1	14756.7	15732.0	15646.2	12996.6
57.5°	5694.6	5940.2	6303.5	7429.9	9095.6	11182.7	13769.8	15259.6	16657.8	16649.1	13982.0
60°	4510.0	4770.1	5142.2	5940.2	7611.6	10150.8	13740.7	15832.3	17839.5	17912.2	15184.0
62.5°	3172.9	3459.2	3871.9	4616.1	6095.7	8813.7	13147.8	16246.6	19230.4	19428.1	16630.2
65°	2085.7	2274.6	2585.7	3228.0	4542.0	7094.2	12015.6	16300.3	20718.7	21053.0	17987.7
67.5°	1462.2	1534.8	1718.0	2066.8	2994.1	5440.2	10211.9	15743.6	21711.4	22087.8	18576.4
70°	1140.9	1177.3	1270.3	1409.8	1880.8	3658.3	7825.3	14296.0	21499.3	21891.6	17961.6
72.5°	985.4	1020.3	1055.2	1072.7	1261.6	2258.7	5300.7	11953.0	19500.7	19766.7	15617.2
75°	893.9	902.6	931.6	925.9	962.2	1465.0	3059.5	8709.0	15386.1	15294.5	11528.7
77.5°	751.4	763.0	811.0	803.7	854.6	1001.4	1588.6	5620.5	9974.9	9352.8	6416.9
80°	636.6	642.5	694.7	686.0	742.7	725.3	811.0	2864.8	4231.0	3584.2	1850.2
82.5°	220.9	273.3	530.5	546.5	566.8	438.9	468.0	1168.6	1292.1	989.7	388.1
85°	107.5	114.8	270.3	383.7	382.2	220.9	228.2	417.2	406.9	319.8	129.4
87.5°	17.4	21.8	32.0	149.8	119.2	58.1	78.5	81.4	84.3	72.7	29.1
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°	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7	3303.7
2.5°	3340.0	3267.3	3114.7	2973.7	2863.2	2757.1	2697.6	2646.8	2617.6	2611.8	2611.8
5°	3430.1	3280.4	3002.8	2768.8	2616.2	2502.8	2443.2	2405.5	2386.5	2374.9	2373.5
7.5°	3559.5	3340.0	2944.6	2678.7	2518.8	2437.4	2406.9	2401.1	2399.6	2401.1	2405.5
10°	3738.3	3437.3	2938.9	2656.9	2523.1	2478.1	2476.6	2478.1	2483.9	2485.4	2486.9
12.5°	3931.6	3537.7	2962.1	2675.8	2578.4	2553.7	2549.3	2547.8	2552.2	2555.1	2556.6
15°	4142.3	3669.9	3001.3	2716.5	2639.5	2613.2	2608.9	2600.2	2598.8	2597.2	2595.8
17.5°	4358.8	3800.7	3045.0	2760.1	2678.7	2642.3	2626.4	2606.1	2590.1	2585.7	2590.1
20°	4578.4	3930.1	3075.5	2781.8	2681.6	2630.8	2598.8	2563.8	2536.3	2520.3	2526.1
22.5°	4812.4	4065.3	3094.4	2776.1	2655.5	2585.7	2527.5	2486.9	2444.7	2417.1	2418.5
25°	5040.5	4183.0	3092.9	2745.6	2604.5	2515.9	2441.8	2389.5	2331.4	2302.3	2302.3
27.5°	5260.0	4289.1	3056.5	2691.8	2531.9	2433.0	2344.4	2281.9	2225.2	2197.6	2196.2
30°	5486.7	4377.8	2999.9	2613.2	2446.2	2337.1	2239.7	2186.0	2135.1	2108.9	2107.5
32.5°	5712.0	4459.2	2919.9	2515.9	2347.2	2242.7	2146.8	2097.4	2066.8	2066.8	2068.2
35°	5950.3	4515.8	2813.8	2402.5	2242.7	2142.4	2066.8	2037.7	2034.8	2017.4	2013.0
37.5°	6201.9	4552.1	2684.5	2286.3	2139.5	2045.0	2021.7	1986.9	1957.7	1920.0	1914.2
40°	6466.3	4588.5	2529.0	2165.6	2030.4	1978.1	1968.0	1921.5	1838.6	1745.6	1732.5
42.5°	6787.6	4613.2	2367.6	2045.0	1915.6	1898.2	1912.8	1832.8	1700.5	1630.8	1632.2
45°	7159.6	4653.9	2219.4	1925.8	1797.8	1797.8	1858.9	1754.3	1645.3	1601.7	1608.9
47.5°	7642.2	4748.4	2081.4	1795.0	1688.9	1718.0	1739.7	1659.8	1598.8	1545.0	1543.5
50°	8339.8	4975.1	1938.9	1662.8	1606.1	1664.2	1633.6	1587.1	1516.0	1472.3	1468.0
52.5°	9206.0	5108.8	1812.4	1543.5	1534.8	1593.0	1549.4	1505.7	1452.0	1393.8	1382.2
55°	9796.1	5133.5	1706.3	1456.3	1486.9	1481.0	1465.0	1425.8	1396.8	1319.7	1321.2
57.5°	10456.0	5182.9	1619.1	1404.0	1456.3	1392.4	1386.6	1353.1	1315.4	1263.0	1245.6
60°	11245.3	5260.0	1543.5	1383.6	1430.2	1334.2	1305.2	1292.1	1254.3	1228.2	1235.4
62.5°	12105.7	5329.8	1466.5	1386.6	1399.6	1277.6	1234.0	1229.6	1206.3	1197.6	1197.6
65°	12692.9	5139.3	1370.6	1383.6	1351.7	1219.4	1164.2	1162.8	1143.9	1140.9	1139.5
67.5°	12487.9	4536.1	1241.3	1343.0	1302.3	1161.3	1100.2	1094.4	1069.7	1071.2	1071.2
70°	11461.8	3675.8	1062.4	1242.7	1241.3	1108.9	1033.4	1014.5	981.0	986.9	992.7
72.5°	9537.4	2723.7	822.7	1075.5	1143.9	1061.0	956.3	925.9	883.7	889.5	888.1
75°	6887.8	1851.7	598.8	818.3	995.6	1004.3	880.8	828.5	777.6	786.3	789.2
77.5°	3524.6	1049.4	440.4	564.0	782.0	912.8	812.5	742.7	731.0	812.5	800.8
80°	1149.6	526.1	305.2	395.3	513.0	747.0	712.2	632.2	629.3	648.2	556.7
82.5°	343.0	222.4	196.2	260.1	283.4	572.7	614.8	478.2	411.3	433.2	447.6
85°	117.8	107.5	111.9	129.4	135.2	335.8	430.2	316.8	299.4	329.9	325.5
87.5°	27.6	37.8	32.0	29.1	29.1	81.4	167.2	132.2	183.2	122.1	117.8
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)