

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: P969421

Luminaire Tested: **NAV-SB5D-827-U-AFL**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969421
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-827-U-AFL
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS
Light Source: -
Ballast/Driver: -

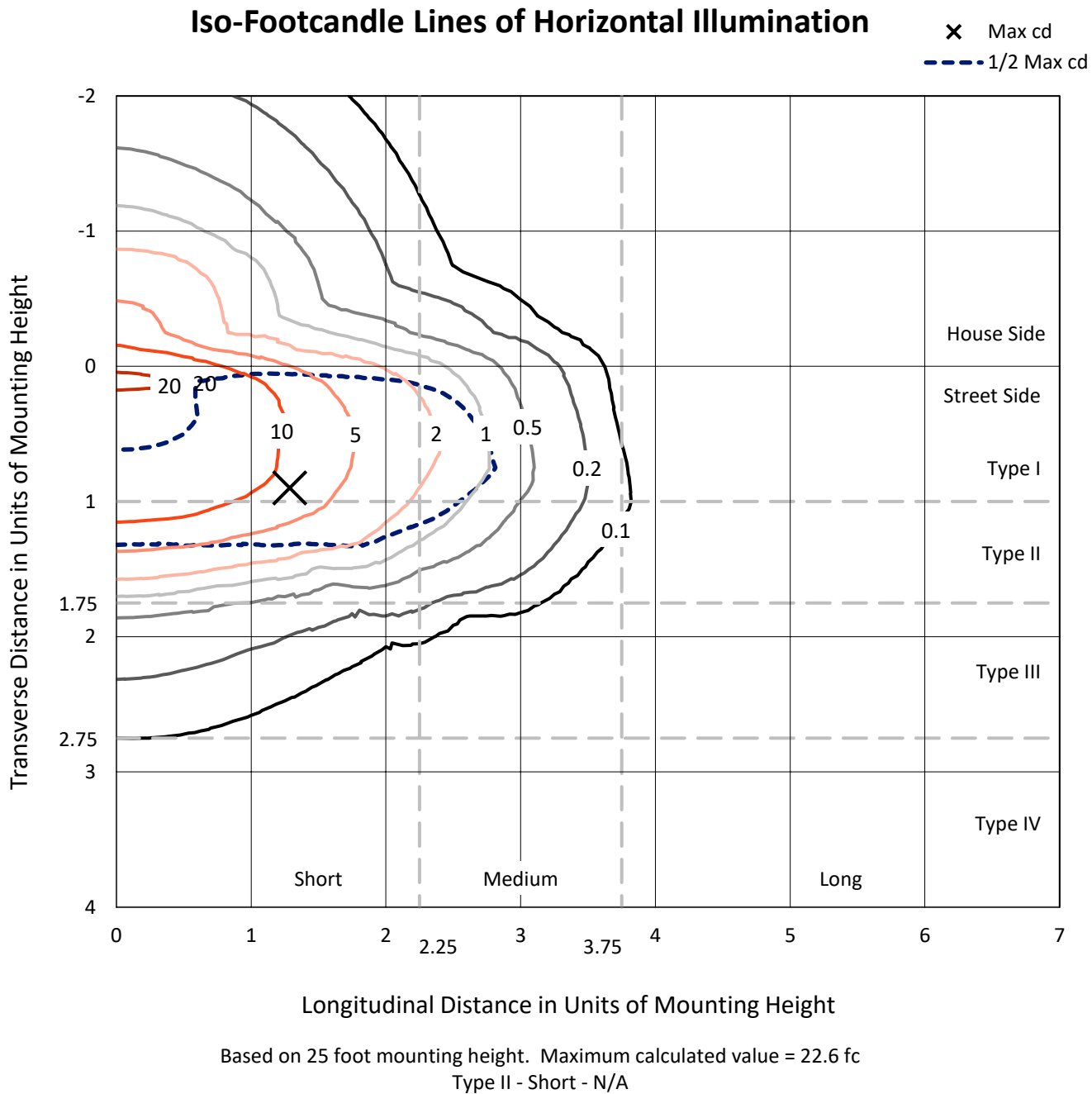
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46596.5 lumens
Efficiency: N/A
Efficacy: 127.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G3

Input Watts (W): 364.9
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

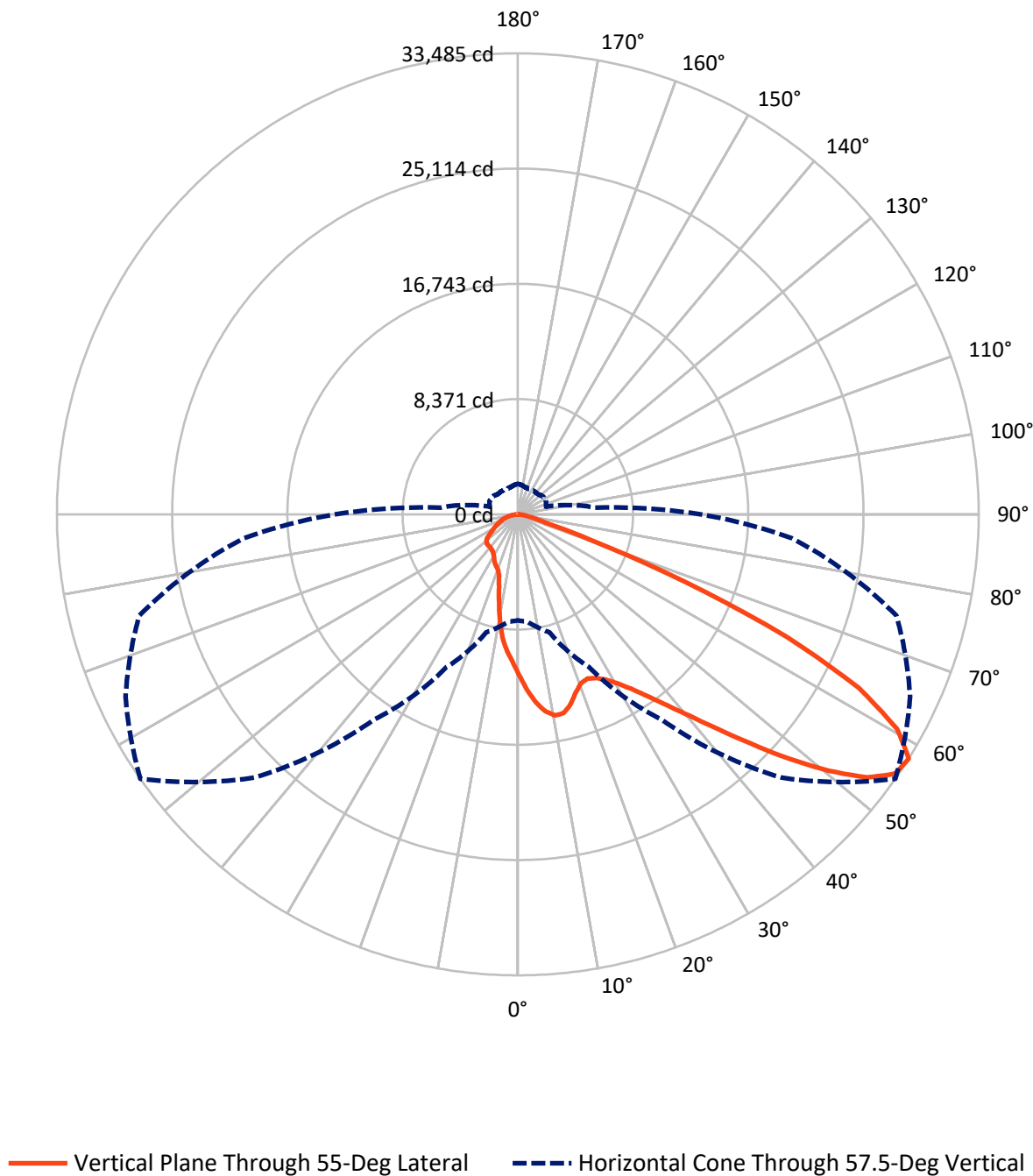


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Luminous Intensity Polar Plot



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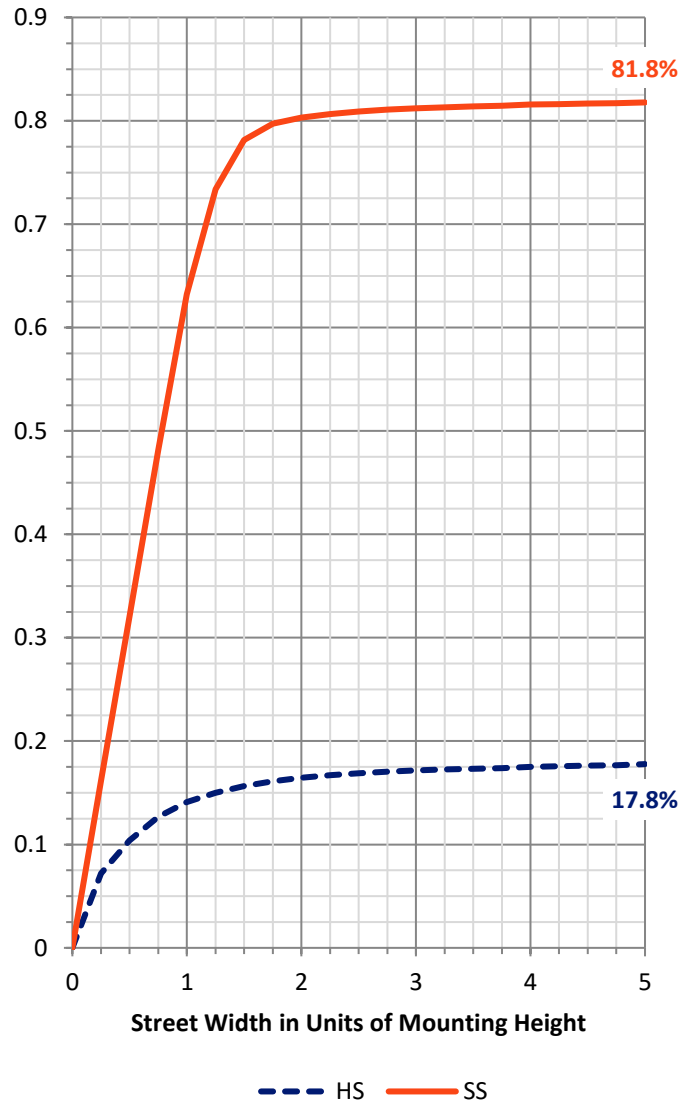
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8431.4	0.0	8431.4
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	38165.1	0.0	38165.1
	% Fixture	81.9	0.0	81.9
Total	Lumens	46596.5	0.0	46596.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1083.4	2.3
10°-20°	2734.6	5.9
20°-30°	4363.7	9.4
30°-40°	6908.8	14.8
40°-50°	10574.5	22.7
50°-60°	11326.3	24.3
60°-70°	7125.4	15.3
70°-80°	2107.1	4.5
80°-90°	372.6	0.8
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°	46596.5	100.0
0°-180°	46596.5	100.0

Coefficient of Utilization



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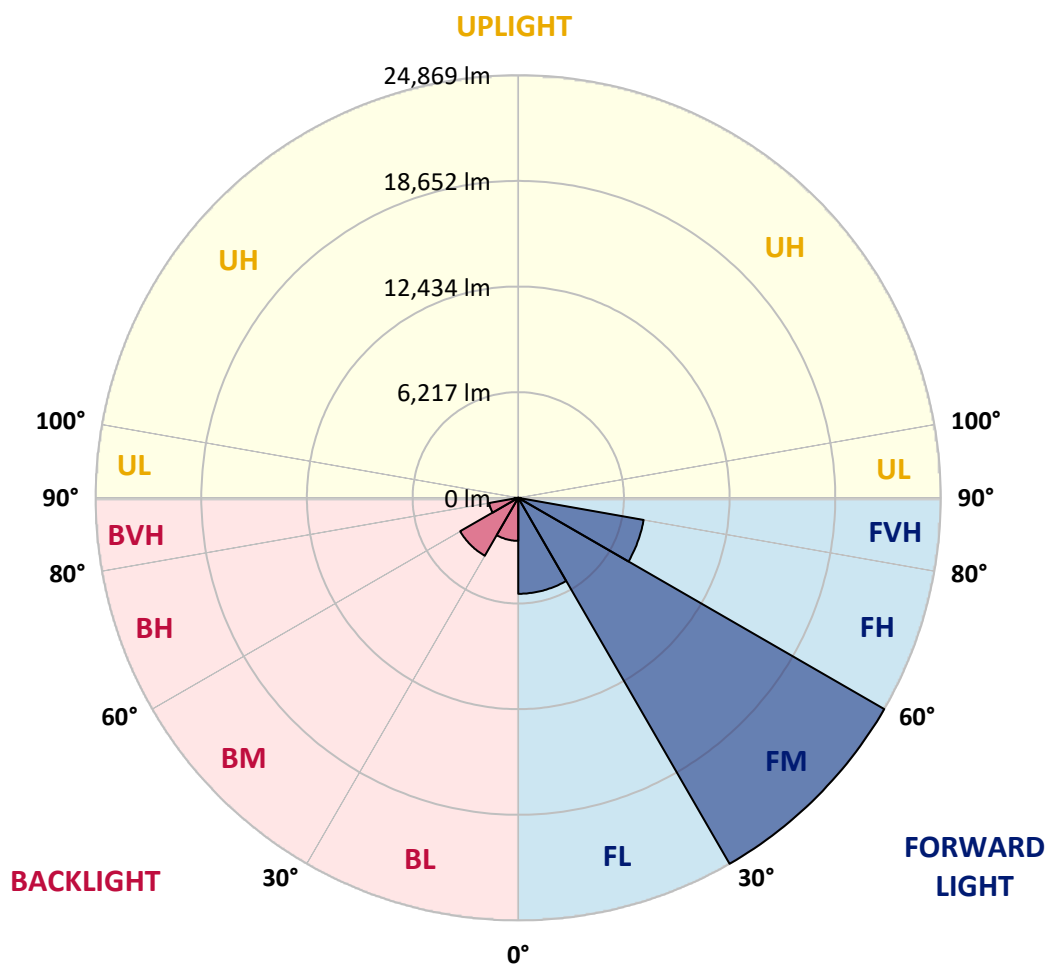
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5647.5	12.1			
FM	(30°-60°)	24868.9	53.4			
FH	(60°-80°)	7491.3	16.1			G3/7500
FVH	(80°-90°)	157.4	0.3			G2/225
BL	(0°-30°)	2534.2	5.4	B4/5000		
BM	(30°-60°)	3940.8	8.5	B3/5000		
BH	(60°-80°)	1741.3	3.7	B3/2500		G3/2500
BVH	(80°-90°)	215.2	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	11675.6	11675.6	11675.6	11675.6	11675.6	11675.6	11675.6	11675.6	11675.6	11675.6	11675.6
2.5°	13395.5	13385.9	13438.9	13258.2	13135.3	12969.1	12749.9	12470.5	12169.4	11851.5	11714.1
5°	14602.3	14518.0	14573.3	14438.5	14303.6	14053.1	13727.9	13272.6	12716.2	12082.7	11745.5
7.5°	14412.0	14354.2	14496.3	14616.7	14717.9	14686.6	14448.1	13971.2	13253.4	12333.2	11844.2
10°	12877.6	12812.5	13012.5	13429.2	14041.1	14573.3	14862.4	14566.2	13802.5	12607.8	11940.5
12.5°	11523.8	11492.5	11624.9	11962.3	12641.5	13662.8	14809.4	15086.5	14373.5	12932.9	12070.6
15°	10945.7	10907.1	10991.5	11162.5	11596.0	12547.5	14327.7	15443.0	14934.7	13308.7	12277.8
17.5°	10818.1	10774.7	10810.8	10900.0	11179.4	11904.5	13600.2	15618.8	15520.0	13727.9	12451.2
20°	11054.1	11017.9	11022.7	11017.9	11213.1	11788.8	13094.4	15551.4	16030.7	14113.3	12619.8
22.5°	11624.9	11564.8	11567.1	11439.5	11545.5	11991.2	12961.8	15370.7	16486.0	14450.6	12747.5
25°	12554.8	12446.4	12468.1	12142.9	12114.0	12444.0	13169.0	15231.0	16938.8	14720.3	12771.6
27.5°	13826.6	13703.8	13638.8	13154.5	12923.3	13087.1	13590.6	15279.2	17367.6	14953.9	12711.3
30°	15416.5	15267.2	15134.6	14448.1	14029.0	13968.8	14245.8	15597.1	17873.4	15199.7	12607.8
32.5°	17365.2	17191.8	16950.9	16040.3	15450.2	15134.6	15093.7	16163.2	18466.1	15512.9	12554.8
35°	19684.9	19458.5	19116.5	17938.5	17191.8	16546.2	16211.4	16979.8	19277.8	15985.0	12615.0
37.5°	22074.5	21819.2	21505.9	20104.0	19186.3	18234.8	17574.8	18087.9	20359.4	16625.7	12774.0
40°	24278.6	23991.9	23700.5	22452.6	21467.4	20320.8	19244.1	19489.8	21681.8	17391.7	13043.7
42.5°	25579.3	25367.3	25256.5	24582.1	23820.9	22657.4	21320.5	21151.9	23168.1	18273.3	13352.2
45°	25521.5	25434.8	25776.8	26056.2	25875.6	25230.1	23753.5	22989.8	24659.1	19036.9	13636.4
47.5°	24158.1	24215.9	24979.5	26550.1	27241.4	27578.6	26523.5	24794.0	25955.0	19607.8	13764.0
50°	20448.5	20496.7	22264.7	25651.5	27593.1	29493.7	29272.1	26554.9	26959.6	19957.1	13735.1
52.5°	17512.1	17543.5	18302.2	22987.4	26432.0	30457.2	31748.4	28214.6	27694.3	20053.5	13573.8
55°	13190.7	13299.1	14149.4	18034.9	23411.4	29693.5	33256.2	29924.8	28159.1	20063.1	13405.2
57.5°	7705.8	7823.8	8874.1	12241.7	18196.2	27031.8	33485.1	31442.4	28474.7	19986.0	13303.9
60°	3774.7	3825.2	4282.9	6433.9	11220.3	21903.4	31644.7	32177.1	28650.6	19945.1	13299.1
62.5°	2543.7	2536.5	2555.7	3174.8	5528.2	14072.3	27809.9	30890.7	28556.6	19788.4	13250.9
65°	2187.2	2160.7	2088.4	2228.1	2864.1	6436.4	21486.7	27051.1	27841.2	19395.9	12920.9
67.5°	1890.9	1893.4	1895.7	1852.4	2045.1	2970.0	13130.5	21308.4	25273.4	17536.2	11649.0
70°	1565.7	1587.4	1597.1	1597.1	1667.0	1948.7	5605.3	14604.7	19935.4	13749.6	9382.3
72.5°	1426.0	1380.3	1385.1	1361.0	1361.0	1483.8	2257.0	8279.1	12559.6	7734.8	5725.8
75°	1163.5	1192.4	1197.2	1180.3	1124.9	1132.1	1339.3	3473.5	5374.1	3208.6	2830.3
77.5°	1004.5	1004.5	1014.1	1002.0	958.7	847.9	893.7	1346.5	1828.3	1315.2	1414.0
80°	807.0	804.5	845.5	869.6	802.2	626.3	570.9	744.4	811.8	578.1	734.7
82.5°	392.7	416.8	580.6	662.5	609.5	452.8	349.3	462.5	433.6	255.3	330.0
85°	228.9	216.8	260.1	368.6	349.3	250.5	168.6	240.9	226.4	130.1	132.5
87.5°	72.3	67.4	53.0	125.3	101.2	69.9	45.8	69.9	62.6	28.9	28.9
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	11675.6	11675.6	11675.6	11675.6	11675.6	11675.6	11675.6	11675.6	11675.6	11675.6
2.5°	11543.0	11258.8	10977.0	10719.2	10562.7	10461.6	10360.4	10247.1	10203.8	10138.8
5°	11427.4	10878.2	10389.3	9967.7	9584.7	9283.6	8980.1	8734.4	8623.6	8698.3
7.5°	11360.0	10565.1	9811.1	9037.9	8293.6	7698.6	7180.7	6817.0	6653.2	6694.2
10°	11299.8	10211.0	9062.0	7840.7	6771.3	6034.1	5504.1	5227.2	5123.6	5145.3
12.5°	11244.4	9813.6	8158.7	6552.0	5415.1	4928.4	4776.7	4779.1	4798.3	4812.8
15°	11234.7	9334.2	7149.4	5424.7	4682.7	4651.4	4815.2	4918.8	4974.2	4991.0
17.5°	11220.3	8760.9	6120.8	4656.3	4504.5	4716.4	4868.2	4935.7	4979.0	4981.4
20°	11162.5	8033.4	5171.7	4290.1	4465.9	4649.0	4743.0	4796.0	4832.1	4844.2
22.5°	10984.2	7224.1	4432.2	4126.3	4311.8	4458.8	4569.6	4629.7	4651.4	4665.9
25°	10663.9	6318.3	3921.5	3969.7	4097.4	4282.9	4372.0	4384.0	4376.9	4398.5
27.5°	10244.8	5347.6	3603.6	3757.8	3921.5	4080.5	4128.7	4121.5	4107.1	4131.2
30°	9738.8	4475.6	3401.3	3519.3	3743.3	3887.8	3931.2	3914.4	3885.5	3911.9
32.5°	9204.1	3762.6	3235.0	3353.1	3596.4	3738.5	3781.8	3765.0	3743.3	3765.0
35°	8705.5	3263.9	3080.8	3242.3	3480.8	3620.5	3675.9	3678.3	3678.3	3704.8
37.5°	8247.8	2972.5	2953.2	3172.4	3401.3	3526.5	3606.1	3610.9	3507.2	3514.5
40°	7823.8	2849.6	2895.4	3126.7	3324.2	3444.6	3449.4	3179.7	2989.3	2984.5
42.5°	7477.0	2825.5	2912.2	3121.8	3268.7	3273.5	2934.0	2724.3	2671.4	2673.8
45°	7151.8	2818.3	2950.8	3121.8	3186.8	2828.0	2599.1	2543.7	2548.6	2567.8
47.5°	6788.1	2789.4	2958.0	3078.5	2950.8	2514.8	2447.4	2423.3	2413.7	2418.5
50°	6390.6	2685.8	2866.5	2991.8	2546.1	2379.9	2295.6	2288.4	2300.4	2307.7
52.5°	5971.4	2517.2	2709.9	2835.1	2360.7	2261.9	2168.0	2184.8	2237.8	2254.7
55°	5696.8	2319.7	2502.7	2522.0	2230.6	2151.1	2071.6	2110.2	2208.9	2240.2
57.5°	5624.6	2110.2	2266.7	2245.1	2064.4	2054.7	2006.5	2040.3	2165.5	2211.3
60°	5603.0	1922.3	2035.4	2018.6	1903.0	1948.7	1936.7	1953.5	1996.9	2011.4
62.5°	5434.3	1772.9	1828.3	1804.2	1758.5	1837.9	1866.8	1830.8	1864.5	1881.3
65°	5005.6	1652.4	1626.0	1609.0	1628.3	1700.7	1758.5	1686.2	1717.5	1765.7
67.5°	4297.3	1488.6	1416.3	1435.6	1495.9	1534.4	1609.0	1527.1	1553.7	1635.6
70°	3476.0	1281.5	1216.5	1271.8	1329.6	1409.2	1421.2	1365.8	1428.4	1520.0
72.5°	2459.4	1071.9	1026.1	1139.4	1158.7	1262.2	1235.7	1209.2	1295.9	1327.3
75°	1705.5	864.8	838.2	925.0	994.9	1083.9	1064.7	1096.0	1279.1	1293.6
77.5°	1079.1	672.1	655.2	710.6	807.0	905.7	937.1	1293.6	2184.8	2271.5
80°	626.3	501.0	481.7	525.1	609.5	701.0	903.3	1587.4	1440.4	1423.6
82.5°	349.3	344.5	320.4	332.4	407.1	505.8	1276.6	1117.7	908.2	937.1
85°	163.8	202.3	173.4	166.3	228.9	592.6	852.7	638.4	423.9	414.3
87.5°	43.4	38.5	38.5	43.4	96.4	510.7	339.7	272.2	161.4	156.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)