

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: P966831

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

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966831
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-4)
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-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23405.9 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - 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



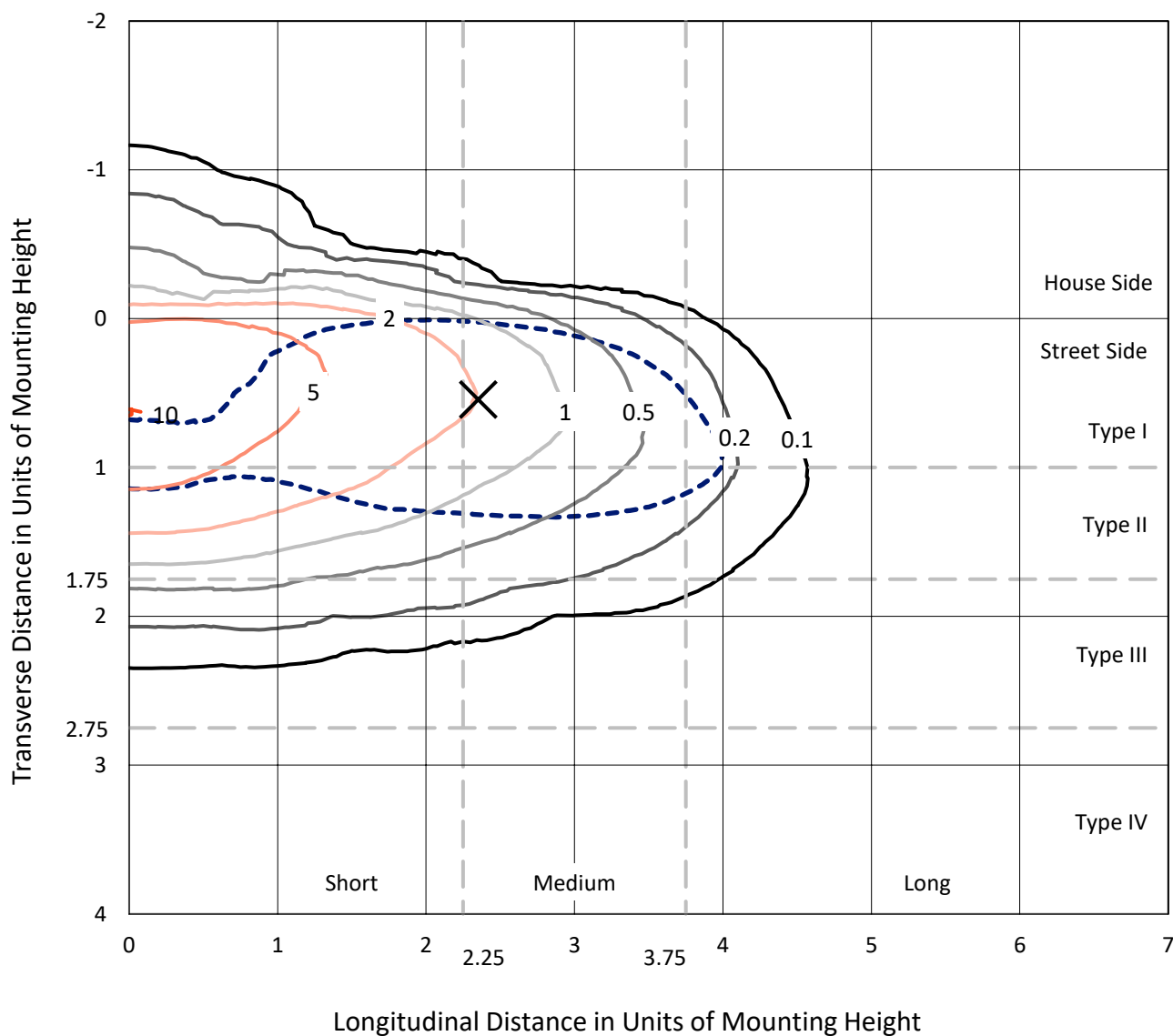
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

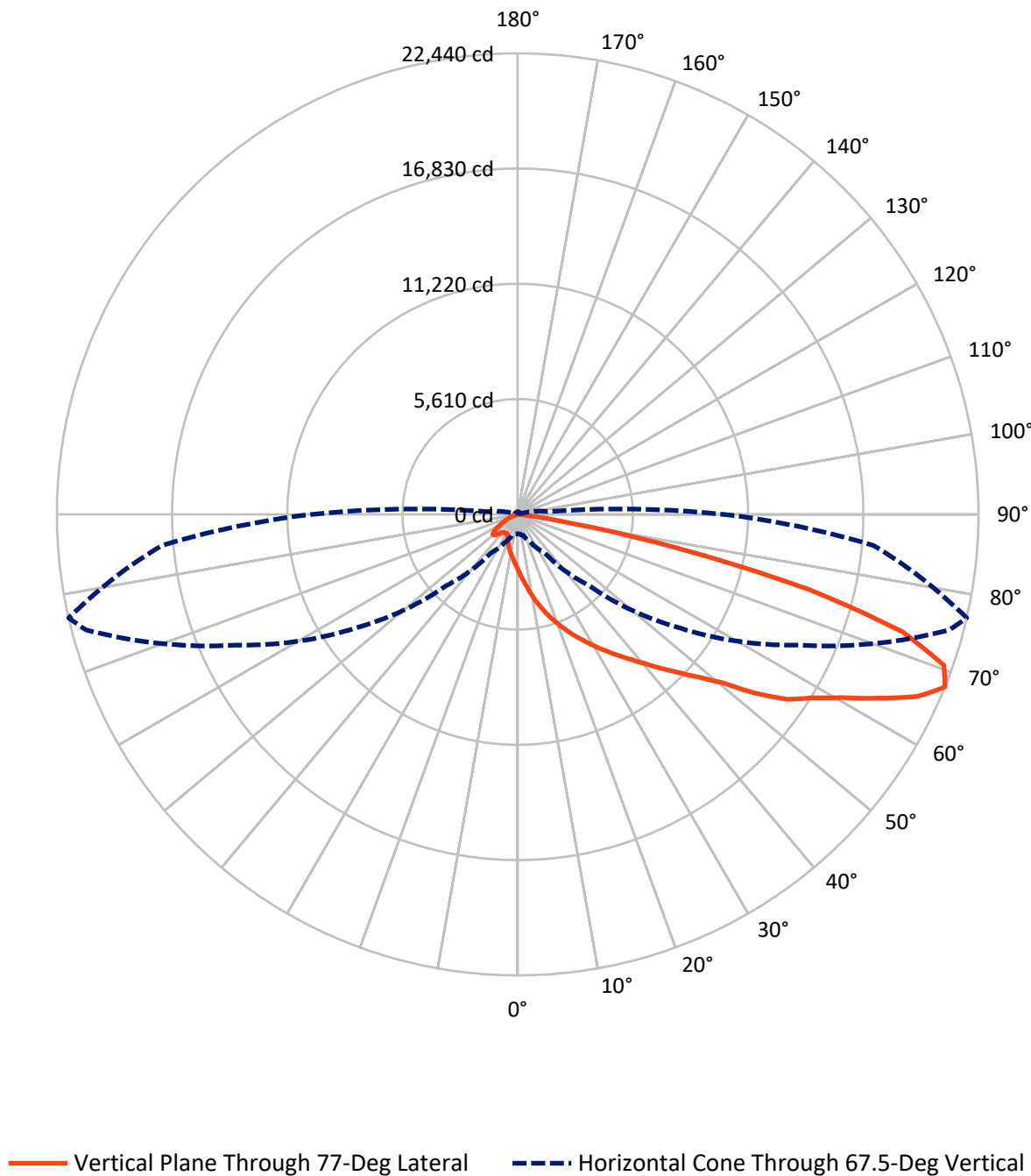
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.1 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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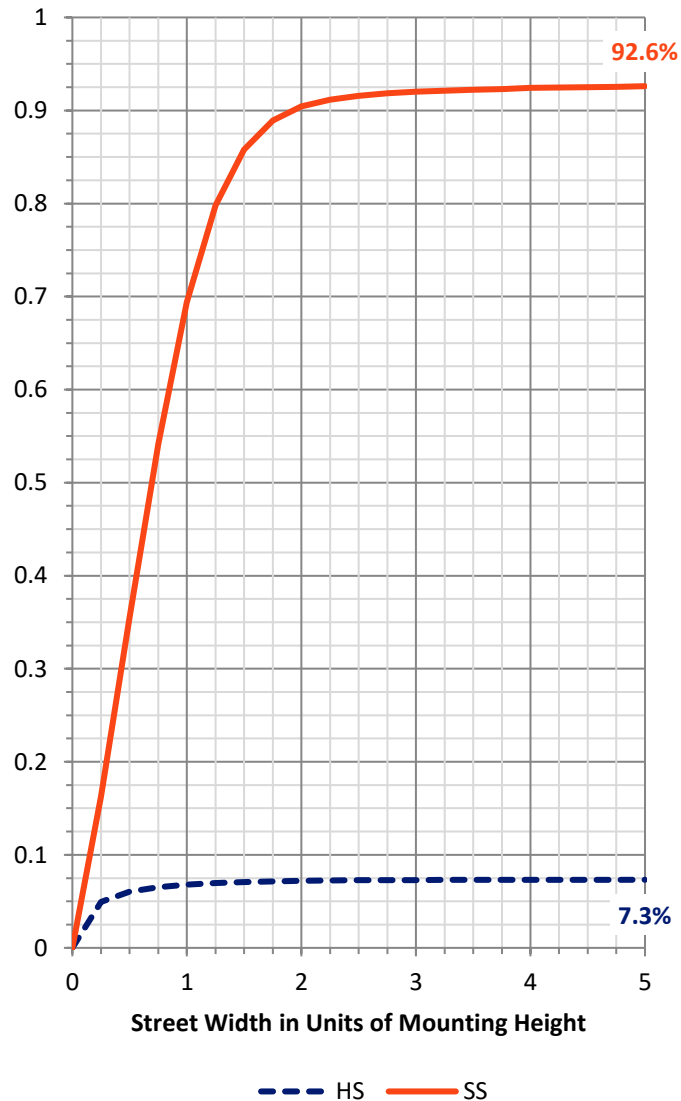
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1722.0	0.0	1722.0
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	21683.9	0.0	21683.9
	% Fixture	92.6	0.0	92.6
Total	Lumens	23405.9	0.0	23405.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	275.5	1.2
10°-20°	964.7	4.1
20°-30°	1861.6	8.0
30°-40°	3231.9	13.8
40°-50°	4692.5	20.0
50°-60°	5388.7	23.0
60°-70°	4678.4	20.0
70°-80°	2203.6	9.4
80°-90°	109.0	0.5
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°	23405.9	100.0
0°-180°	23405.9	100.0

Coefficient of Utilization



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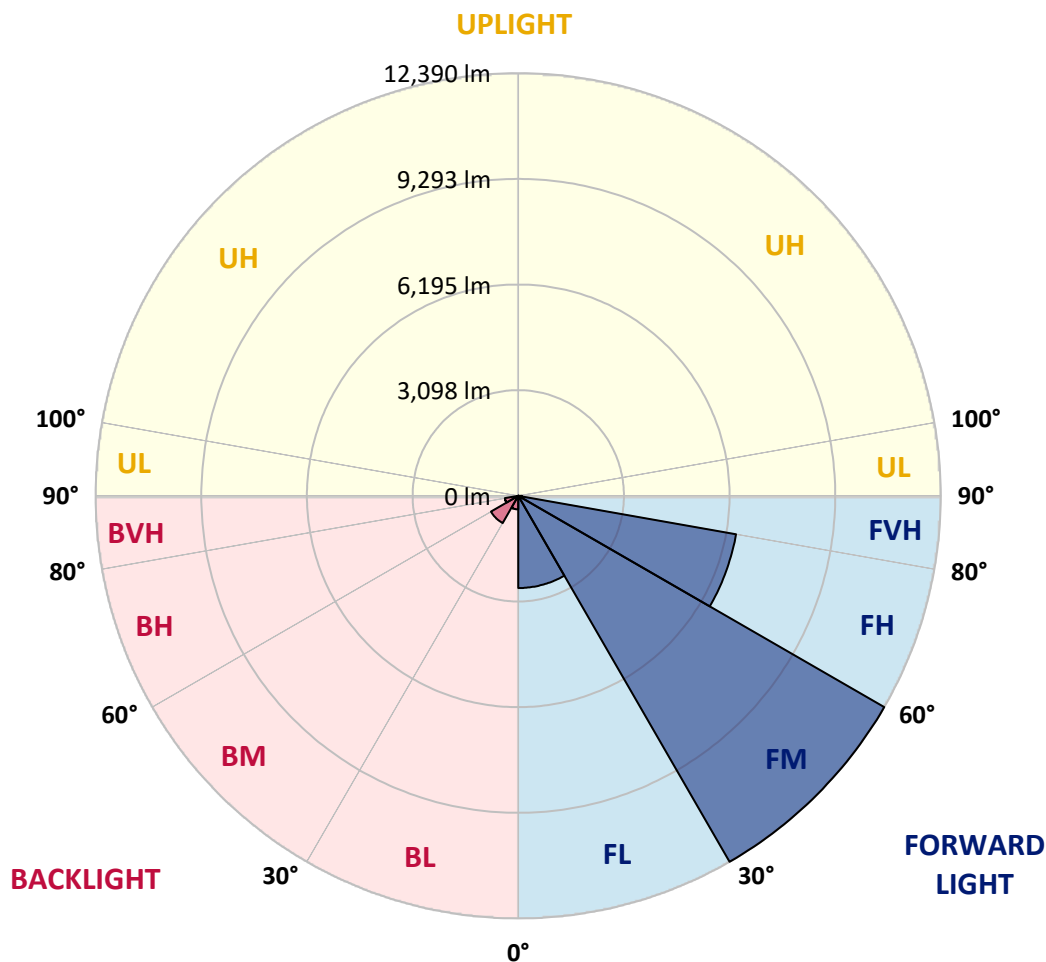
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2703.1	11.5			
FM	(30°-60°)	12390.4	52.9			
FH	(60°-80°)	6483.4	27.7			G3/7500
FVH	(80°-90°)	107.0	0.5			G2/225
BL	(0°-30°)	398.7	1.7	B1/500		
BM	(30°-60°)	922.7	3.9	B1/1000		
BH	(60°-80°)	398.6	1.7	B1/500		G1/500
BVH	(80°-90°)	2.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	2699.0	2699.0	2699.0	2699.0	2699.0	2699.0	2699.0	2699.0	2699.0	2699.0	2699.0
2.5°	3736.8	3760.0	3726.6	3662.6	3566.8	3504.3	3351.6	3207.7	3047.8	2997.0	2837.1
5°	4555.1	4575.4	4537.7	4467.9	4340.0	4217.9	4017.3	3716.4	3403.9	3303.7	3020.3
7.5°	5161.2	5172.8	5158.3	5094.4	4972.3	4834.1	4610.3	4254.3	3790.6	3680.2	3245.6
10°	5597.2	5635.0	5630.6	5605.9	5524.5	5412.6	5174.3	4768.7	4223.7	4081.2	3499.9
12.5°	5886.5	5928.6	5953.3	6008.5	6004.1	5932.9	5723.7	5294.8	4655.3	4488.3	3786.2
15°	5970.7	6015.8	6110.2	6238.2	6351.5	6387.9	6241.1	5810.8	5130.6	4917.0	4079.8
17.5°	5922.8	5992.6	6105.9	6308.0	6556.5	6720.7	6704.7	6309.4	5562.4	5318.1	4367.6
20°	6028.8	6095.8	6184.4	6354.5	6643.6	6941.6	7060.8	6786.1	5991.1	5735.3	4669.9
22.5°	6616.1	6604.5	6613.2	6640.8	6813.7	7108.8	7354.4	7219.3	6415.5	6153.9	4989.7
25°	7546.3	7494.0	7405.3	7255.6	7212.0	7354.4	7610.2	7602.9	6863.2	6582.7	5316.7
27.5°	8613.1	8604.4	8396.5	8036.1	7832.6	7777.4	7899.5	7976.4	7306.4	7007.0	5645.2
30°	9634.9	9658.2	9377.6	8976.4	8602.9	8386.3	8275.8	8331.1	7757.0	7464.9	5983.8
32.5°	10524.4	10549.1	10243.8	9774.4	9312.2	9050.5	8818.1	8681.4	8248.3	7930.0	6355.9
35°	11275.8	11300.5	10950.3	10431.3	9938.6	9701.7	9438.6	9065.1	8742.4	8446.0	6770.1
37.5°	11947.3	11940.0	11470.6	10947.3	10463.3	10275.8	10137.8	9537.5	9251.1	8964.9	7229.4
40°	12344.1	12374.6	11973.4	11396.5	10927.0	10790.4	10781.7	10123.2	9838.4	9560.8	7732.3
42.5°	12460.3	12514.1	12223.4	11749.6	11323.8	11175.5	11403.7	10757.0	10521.4	10251.1	8300.7
45°	12251.1	12303.4	12171.2	11842.6	11594.1	11498.1	11938.6	11413.9	11251.1	10983.7	8941.6
47.5°	11640.6	11706.0	11738.0	11668.2	11665.3	11762.7	12418.2	12105.8	12117.3	11844.1	9684.3
50°	10459.0	10569.4	10863.1	11110.1	11492.4	11972.0	12884.8	12855.7	13094.1	12858.6	10652.3
52.5°	8310.8	8467.7	9479.3	10155.2	11014.1	11932.7	13397.9	14059.1	14807.7	14463.2	12017.1
55°	6678.6	6678.6	7501.3	8765.7	10081.1	11674.0	13621.6	14841.1	15974.8	15893.3	12977.8
57.5°	5444.6	5510.0	6034.7	7152.3	8730.8	11057.8	13759.7	15332.4	16915.2	16855.6	13916.7
60°	3360.4	3501.3	4492.6	5595.8	7194.6	9960.4	13672.6	15829.5	18056.1	18104.1	15047.5
62.5°	1892.4	1944.7	2386.5	4026.0	5594.3	8485.2	13005.4	16107.1	19515.4	19718.8	16213.1
65°	1306.7	1332.8	1502.9	2505.7	3877.8	6755.6	11701.7	15934.0	20977.5	21388.9	17201.4
67.5°	949.0	962.2	1068.3	1530.4	2300.8	4898.1	9658.2	15062.1	21752.2	22439.7	17390.5
70°	729.6	738.3	815.4	1005.8	1358.9	3023.1	7014.3	13328.1	21191.2	22012.4	16422.4
72.5°	593.0	601.7	661.3	744.2	901.2	1787.7	4251.3	10823.8	18714.6	19601.1	13980.7
75°	500.0	511.6	565.4	619.2	706.3	1148.2	1994.1	7537.5	14073.7	14655.0	9722.0
77.5°	277.6	255.8	459.3	513.1	595.9	726.7	933.2	4435.9	7882.0	8043.4	4313.8
80°	172.9	178.8	364.8	412.8	457.9	366.2	427.3	1707.8	2732.4	2595.8	835.7
82.5°	10.1	23.3	280.5	298.0	314.0	156.9	161.3	579.9	658.5	604.6	148.2
85°	0.0	0.0	127.9	103.2	109.0	45.1	46.5	135.2	88.7	95.9	29.1
87.5°	0.0	0.0	0.0	2.9	0.0	4.4	8.7	11.6	4.4	5.8	10.1
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°	2699.0	2699.0	2699.0	2699.0	2699.0	2699.0	2699.0	2699.0	2699.0	2699.0	2699.0
2.5°	2735.4	2633.6	2427.2	2225.2	2061.0	1908.3	1799.4	1696.2	1643.8	1640.9	1638.1
5°	2818.2	2604.5	2191.8	1827.0	1533.4	1298.0	1145.3	1036.3	981.0	962.2	959.3
7.5°	2934.5	2613.2	1985.4	1478.2	1132.2	930.2	843.0	808.1	796.5	783.4	780.5
10°	3081.3	2633.6	1800.8	1190.3	892.4	790.7	755.8	741.3	732.6	723.9	720.9
12.5°	3245.6	2652.5	1617.7	988.3	784.8	732.6	707.9	690.3	678.8	668.6	665.6
15°	3405.5	2664.2	1427.3	847.4	729.6	687.5	661.3	642.5	626.5	614.8	613.4
17.5°	3563.8	2680.2	1248.6	763.0	684.6	642.5	616.2	593.0	579.9	566.8	565.4
20°	3739.7	2677.2	1079.9	703.5	639.5	597.4	569.8	548.0	534.8	520.3	518.9
22.5°	3902.5	2662.7	931.6	652.6	593.0	552.3	521.8	500.0	486.9	475.3	473.9
25°	4090.0	2651.1	808.1	606.1	549.4	508.7	475.3	454.9	440.4	430.2	428.8
27.5°	4270.3	2633.6	718.0	564.0	507.3	468.0	436.0	412.8	399.6	392.5	392.5
30°	4447.6	2629.2	684.6	523.3	469.4	430.2	398.2	376.5	366.2	363.4	361.9
32.5°	4661.2	2640.9	699.2	508.7	434.6	395.3	364.8	348.8	338.7	338.7	338.7
35°	4889.4	2638.0	720.9	521.8	411.3	360.5	337.2	327.0	316.8	316.8	316.8
37.5°	5175.7	2642.3	738.3	543.6	402.6	331.4	318.3	305.2	299.4	299.4	299.4
40°	5603.1	2786.3	729.6	562.5	399.6	311.1	284.8	280.5	276.1	276.1	276.1
42.5°	6126.2	3098.8	741.3	564.0	398.2	296.5	261.6	270.3	260.1	258.7	257.3
45°	6698.9	3440.3	815.4	533.4	396.8	289.3	250.0	260.1	244.2	244.2	244.2
47.5°	7267.2	3779.0	890.9	489.8	392.5	287.8	239.8	234.0	229.6	231.1	231.1
50°	8050.7	4055.1	920.0	430.2	382.2	284.8	220.9	222.4	219.5	222.4	222.4
52.5°	8903.8	4113.2	885.2	363.4	353.2	276.1	207.9	213.6	212.2	215.1	215.1
55°	9435.7	4050.7	731.0	302.3	308.1	241.3	194.7	206.4	206.4	206.4	206.4
57.5°	9985.1	3784.8	518.9	245.6	255.8	197.6	183.2	199.2	197.6	196.2	196.2
60°	10380.5	3354.5	341.5	202.0	203.5	162.8	170.0	187.5	186.0	178.8	178.8
62.5°	10675.6	2879.2	219.5	171.5	155.5	146.8	155.5	170.0	164.2	148.2	145.3
65°	10642.1	2220.9	168.6	146.8	127.9	127.9	135.2	148.2	130.8	104.7	101.8
67.5°	10021.5	1502.9	139.5	123.5	107.5	106.1	111.9	123.5	111.9	88.7	85.8
70°	8912.5	982.6	111.9	95.9	85.8	78.5	90.1	106.1	94.5	71.2	68.3
72.5°	7233.7	598.8	84.3	69.8	62.5	50.8	71.2	87.2	75.5	52.3	49.4
75°	4680.0	305.2	58.1	45.1	33.4	30.5	52.3	65.4	52.3	32.0	27.6
77.5°	1790.7	127.9	32.0	20.4	17.4	14.6	29.1	39.3	21.8	7.3	5.8
80°	344.5	53.8	16.0	10.1	8.7	5.8	4.4	2.9	0.0	0.0	0.0
82.5°	59.6	17.4	5.8	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	20.4	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)