

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: P966800

Luminaire Tested: **NAV-SB4C-827-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966800
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-827-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 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: 22650.5 lumens
Efficiency: N/A
Efficacy: 112.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G3

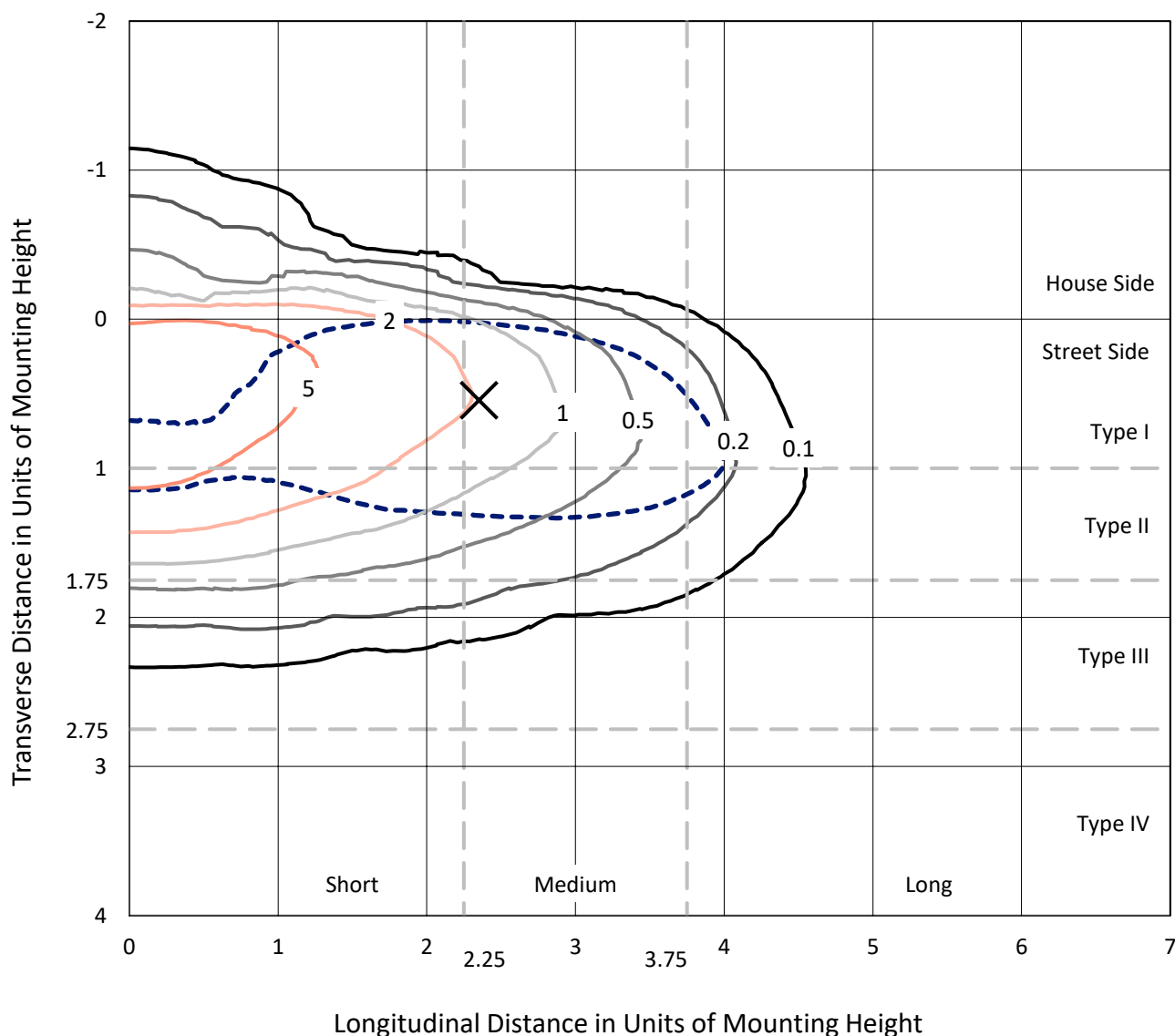
Input Watts (W): 200.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

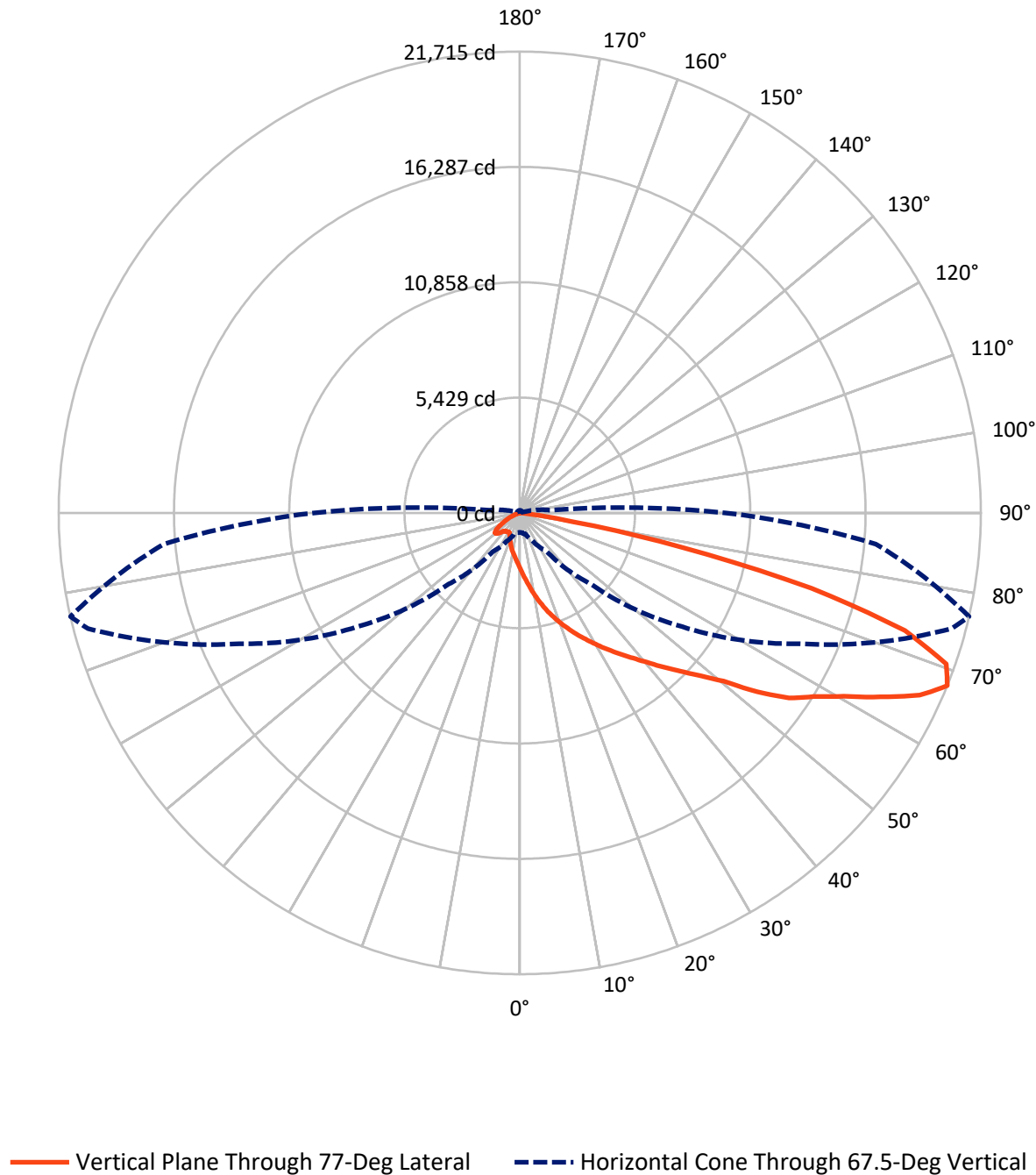
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.8 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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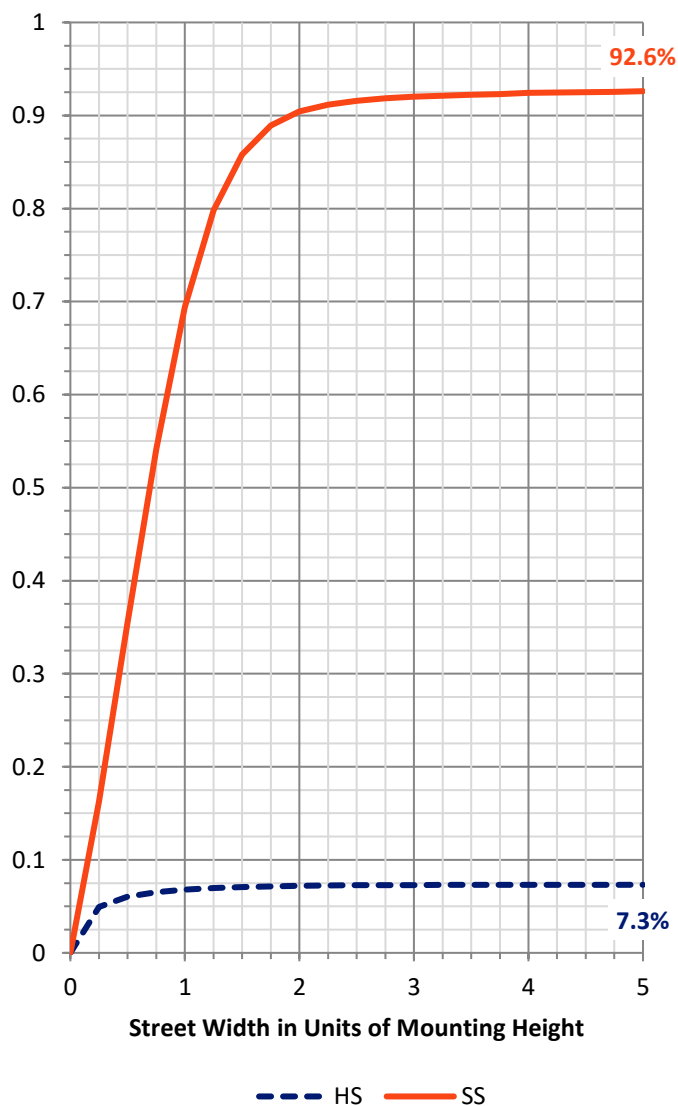
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1666.4	0.0	1666.4
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	20984.0	0.0	20984.0
	% Fixture	92.6	0.0	92.6
Total	Lumens	22650.5	0.0	22650.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	266.6	1.2
10°-20°	933.6	4.1
20°-30°	1801.5	8.0
30°-40°	3127.6	13.8
40°-50°	4541.0	20.0
50°-60°	5214.8	23.0
60°-70°	4527.4	20.0
70°-80°	2132.5	9.4
80°-90°	105.5	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°	22650.5	100.0
0°-180°	22650.5	100.0

Coefficient of Utilization



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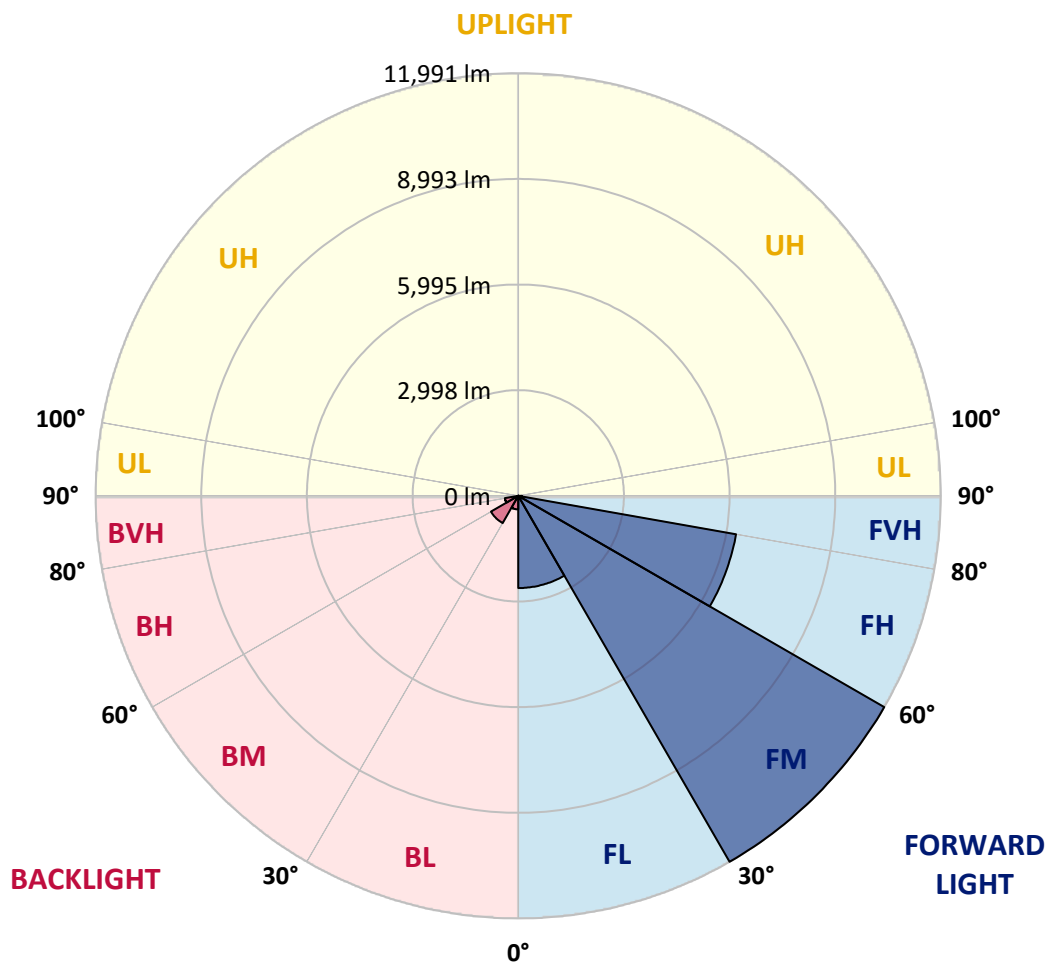
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2615.9	11.5			
FM	(30°-60°)	11990.5	52.9			
FH	(60°-80°)	6274.1	27.7			G3/7500
FVH	(80°-90°)	103.5	0.5			G2/225
BL	(0°-30°)	385.8	1.7	B1/500		
BM	(30°-60°)	892.9	3.9	B1/1000		
BH	(60°-80°)	385.8	1.7	B1/500		G1/500
BVH	(80°-90°)	1.9	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°	2611.9	2611.9	2611.9	2611.9	2611.9	2611.9	2611.9	2611.9	2611.9	2611.9	2611.9
2.5°	3616.2	3638.6	3606.4	3544.4	3451.6	3391.1	3243.5	3104.2	2949.5	2900.2	2745.6
5°	4408.1	4427.8	4391.2	4323.7	4199.9	4081.8	3887.6	3596.5	3294.1	3197.1	2922.8
7.5°	4994.6	5005.9	4991.8	4929.9	4811.8	4678.1	4461.5	4116.9	3668.3	3561.4	3140.8
10°	5416.5	5453.1	5448.9	5425.0	5346.2	5238.0	5007.2	4614.9	4087.4	3949.5	3386.9
12.5°	5696.4	5737.2	5761.1	5814.6	5810.4	5741.4	5538.9	5124.0	4505.1	4343.3	3664.0
15°	5778.0	5821.6	5913.0	6036.8	6146.5	6181.7	6039.6	5623.4	4965.1	4758.3	3948.1
17.5°	5731.6	5799.1	5908.8	6104.4	6344.9	6503.8	6488.4	6105.7	5382.8	5146.5	4226.6
20°	5834.3	5899.0	5984.8	6149.4	6429.2	6717.6	6833.0	6567.1	5797.7	5550.2	4519.2
22.5°	6402.6	6391.3	6399.7	6426.4	6593.8	6879.4	7117.1	6986.2	6208.4	5955.2	4828.7
25°	7302.7	7252.1	7166.3	7021.5	6979.2	7117.1	7364.6	7357.6	6641.7	6370.2	5145.1
27.5°	8335.1	8326.7	8125.6	7776.7	7579.8	7526.4	7644.4	7719.1	7070.7	6780.9	5462.9
30°	9323.9	9346.4	9074.9	8686.8	8325.3	8115.6	8008.8	8062.2	7506.7	7224.0	5790.7
32.5°	10184.7	10208.6	9913.3	9458.9	9011.7	8758.5	8533.4	8401.2	7982.1	7674.1	6150.7
35°	10911.8	10935.8	10596.9	10094.7	9617.9	9388.6	9134.0	8772.6	8460.2	8173.4	6551.6
37.5°	11561.7	11554.6	11100.3	10594.0	10125.7	9944.1	9810.6	9229.6	8952.6	8675.5	6996.1
40°	11945.7	11975.2	11587.0	11028.6	10574.3	10442.1	10433.7	9796.5	9520.8	9252.2	7482.7
42.5°	12058.2	12110.3	11828.9	11370.4	10958.3	10814.8	11035.7	10409.7	10181.8	9920.3	8032.7
45°	11855.7	11906.3	11778.3	11460.4	11219.9	11127.1	11553.3	11045.5	10888.0	10629.1	8652.9
47.5°	11265.0	11328.2	11359.2	11291.6	11288.8	11383.0	12017.4	11715.0	11726.3	11461.9	9371.7
50°	10121.4	10228.3	10512.4	10751.5	11121.5	11585.6	12468.9	12440.7	12671.5	12443.6	10308.4
52.5°	8042.6	8194.5	9173.4	9827.4	10658.7	11547.6	12965.4	13605.3	14329.7	13996.4	11629.2
55°	6463.0	6463.0	7259.2	8482.8	9755.7	11297.2	13182.0	14362.1	15459.2	15380.4	12558.9
57.5°	5268.9	5332.2	5839.9	6921.5	8449.1	10700.9	13315.7	14837.5	16369.2	16311.5	13467.6
60°	3251.9	3388.3	4347.6	5415.2	6962.3	9639.0	13231.2	15318.5	17473.4	17519.8	14561.9
62.5°	1831.3	1881.9	2309.5	3896.1	5413.7	8211.4	12585.7	15587.2	18885.5	19082.4	15689.9
65°	1264.4	1289.8	1454.4	2424.8	3752.6	6537.6	11324.0	15419.8	20300.4	20698.5	16646.3
67.5°	918.5	931.1	1033.8	1481.1	2226.5	4740.0	9346.4	14575.9	21050.1	21715.4	16829.2
70°	706.1	714.5	789.0	973.3	1315.1	2925.6	6788.0	12897.9	20507.3	21302.0	15892.4
72.5°	573.9	582.3	640.0	720.2	872.1	1730.0	4114.1	10474.5	18110.5	18968.4	13529.4
75°	483.8	495.1	547.1	599.2	683.6	1111.2	1929.8	7294.3	13619.5	14182.1	9408.3
77.5°	268.7	247.5	444.4	496.5	576.7	703.3	903.0	4292.7	7627.6	7783.7	4174.6
80°	167.4	173.0	353.0	399.4	443.1	354.4	413.5	1652.7	2644.3	2512.1	808.7
82.5°	9.8	22.5	271.4	288.3	303.8	151.9	156.1	561.2	637.1	585.1	143.5
85°	0.0	0.0	123.8	99.8	105.5	43.6	45.0	130.8	85.8	92.9	28.1
87.5°	0.0	0.0	0.0	2.8	0.0	4.2	8.4	11.3	4.2	5.6	9.8
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°	2611.9	2611.9	2611.9	2611.9	2611.9	2611.9	2611.9	2611.9	2611.9	2611.9	2611.9
2.5°	2647.1	2548.7	2348.9	2153.4	1994.4	1846.7	1741.3	1641.4	1590.8	1587.9	1585.2
5°	2727.2	2520.5	2121.0	1768.0	1483.9	1256.0	1108.3	1002.9	949.5	931.1	928.3
7.5°	2839.8	2529.0	1921.4	1430.5	1095.7	900.2	815.8	782.1	770.8	758.1	755.3
10°	2981.8	2548.7	1742.7	1152.0	863.6	765.2	731.4	717.3	708.9	700.5	697.6
12.5°	3140.8	2566.9	1565.5	956.4	759.5	708.9	685.0	668.1	656.8	647.0	644.2
15°	3295.5	2578.2	1381.2	820.0	706.1	665.3	640.0	621.7	606.2	595.0	593.6
17.5°	3448.8	2593.7	1208.2	738.4	662.5	621.7	596.3	573.9	561.2	548.6	547.1
20°	3619.0	2590.8	1045.1	680.8	618.9	578.1	551.3	530.2	517.6	503.6	502.1
22.5°	3776.5	2576.7	901.6	631.5	573.9	534.4	504.9	483.8	471.2	459.9	458.5
25°	3957.9	2565.5	782.1	586.5	531.7	492.3	459.9	440.2	426.2	416.4	414.9
27.5°	4132.4	2548.7	694.8	545.7	490.9	452.9	422.0	399.4	386.8	379.8	379.8
30°	4304.0	2544.5	662.5	506.4	454.3	416.4	385.4	364.3	354.4	351.7	350.2
32.5°	4510.7	2555.6	676.5	492.3	420.6	382.5	353.0	337.5	327.7	327.7	327.7
35°	4731.6	2552.9	697.6	504.9	398.0	348.8	326.4	316.5	306.6	306.6	306.6
37.5°	5008.7	2557.1	714.5	526.0	389.6	320.7	308.0	295.4	289.8	289.8	289.8
40°	5422.1	2696.4	706.1	544.4	386.8	301.0	275.7	271.4	267.2	267.2	267.2
42.5°	5928.5	2998.7	717.3	545.7	385.4	286.9	253.2	261.6	251.7	250.4	249.0
45°	6482.7	3329.3	789.0	516.2	384.0	279.9	241.9	251.7	236.3	236.3	236.3
47.5°	7032.6	3657.0	862.2	474.0	379.8	278.5	232.1	226.4	222.2	223.7	223.7
50°	7790.8	3924.2	890.3	416.4	369.9	275.7	213.8	215.2	212.4	215.2	215.2
52.5°	8616.5	3980.5	856.6	351.7	341.8	267.2	201.1	206.7	205.3	208.2	208.2
55°	9131.2	3920.0	707.5	292.5	298.2	233.5	188.5	199.8	199.8	199.8	199.8
57.5°	9662.9	3662.6	502.1	237.7	247.5	191.3	177.2	192.7	191.3	189.9	189.9
60°	10045.4	3246.3	330.6	195.5	196.9	157.5	164.6	181.4	180.0	173.0	173.0
62.5°	10331.0	2786.4	212.4	165.9	150.5	142.1	150.5	164.6	159.0	143.5	140.6
65°	10298.6	2149.2	163.2	142.1	123.8	123.8	130.8	143.5	126.6	101.3	98.5
67.5°	9698.0	1454.4	135.0	119.5	104.0	102.7	108.3	119.5	108.3	85.8	83.0
70°	8624.9	950.8	108.3	92.9	83.0	76.0	87.2	102.7	91.4	68.9	66.1
72.5°	7000.3	579.5	81.6	67.5	60.5	49.2	68.9	84.4	73.2	50.6	47.9
75°	4529.1	295.4	56.3	43.6	32.4	29.5	50.6	63.3	50.6	31.0	26.8
77.5°	1732.9	123.8	31.0	19.7	16.9	14.0	28.1	38.0	21.1	7.1	5.6
80°	333.3	52.1	15.5	9.8	8.4	5.6	4.2	2.8	0.0	0.0	0.0
82.5°	57.7	16.9	5.6	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	19.7	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.1	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)