

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: P961933

Luminaire Tested: **NAV-SB2B-735-U-T2R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961933
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-SB2B-735-U-T2R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 450mA 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: 9773.4 lumens
Efficiency: N/A
Efficacy: 132.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

Input Watts (W): 73.9
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

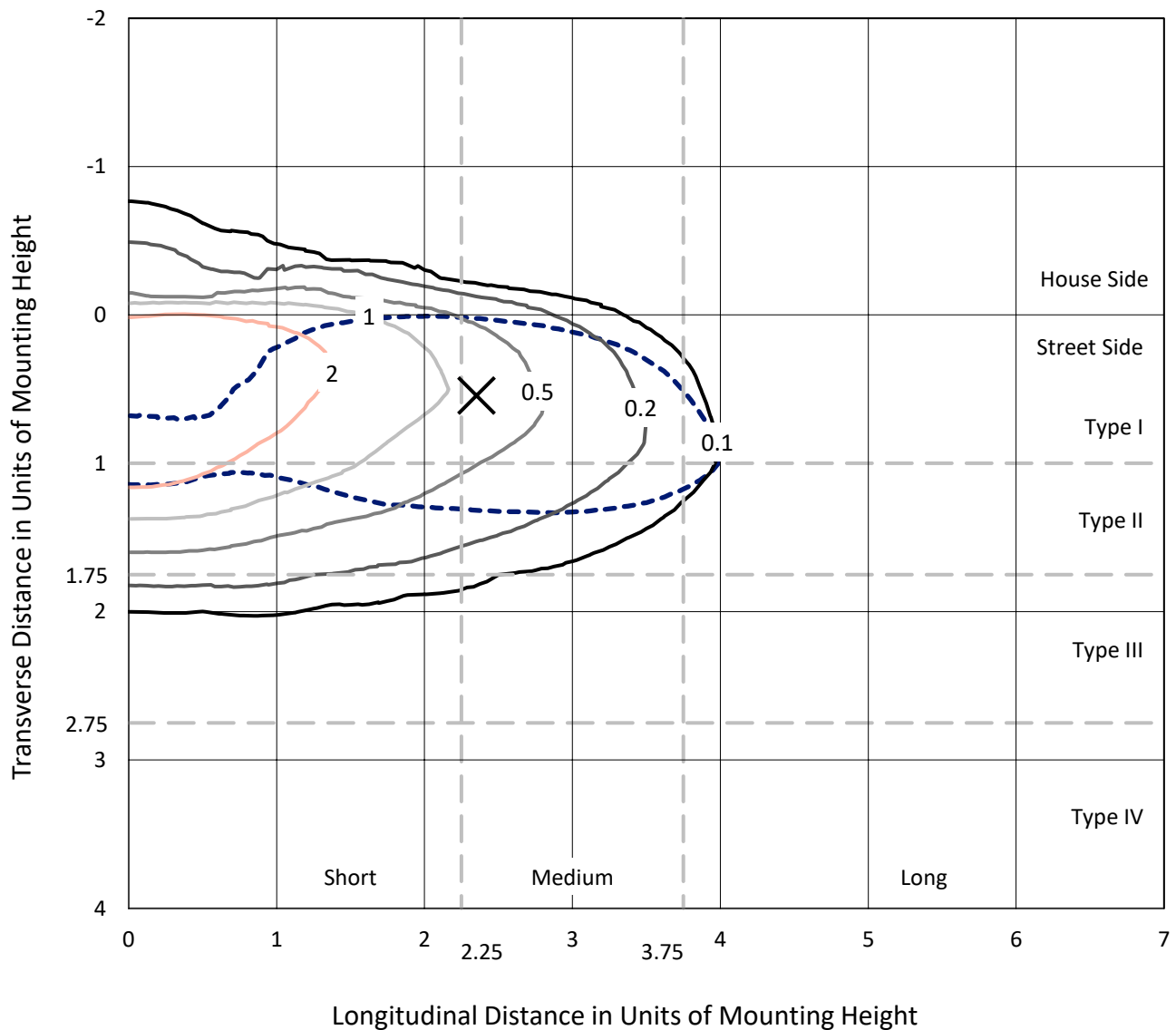


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Iso-Footcandle Lines of Horizontal Illumination

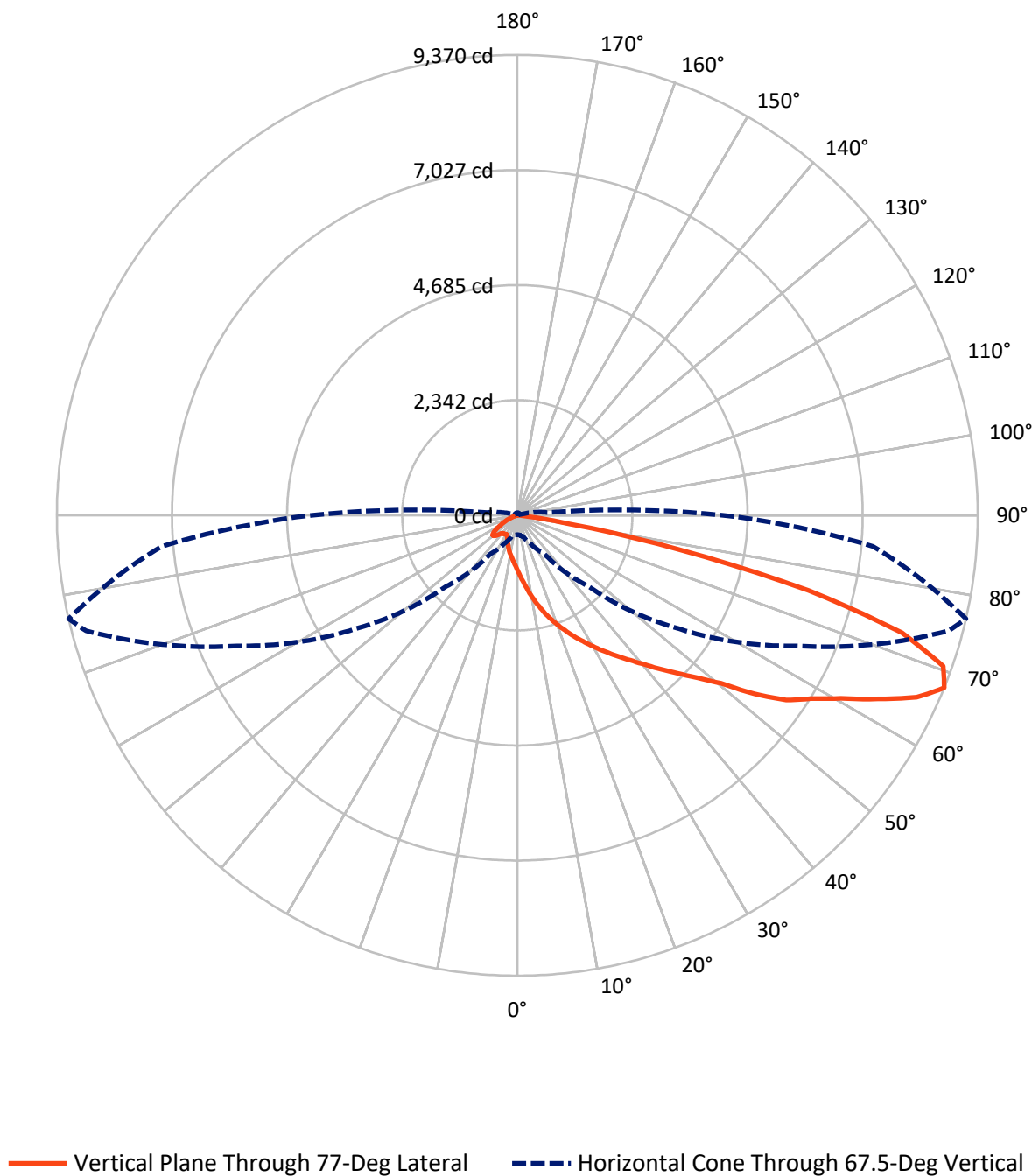
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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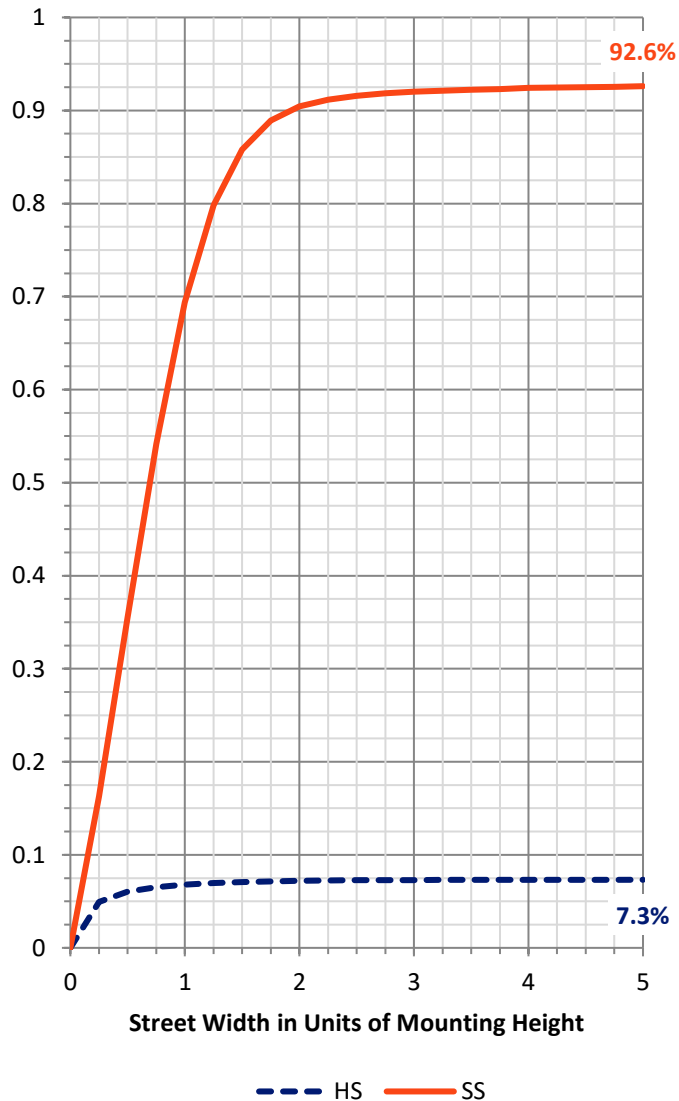
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	719.0	0.0	719.0
	% Fixture	7.4	0.0	7.4
Street Side	Lumens	9054.3	0.0	9054.3
	% Fixture	92.6	0.0	92.6
Total	Lumens	9773.4	0.0	9773.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.0	1.2
10°-20°	402.8	4.1
20°-30°	777.3	8.0
30°-40°	1349.5	13.8
40°-50°	1959.4	20.0
50°-60°	2250.1	23.0
60°-70°	1953.5	20.0
70°-80°	920.1	9.4
80°-90°	45.5	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°	9773.4	100.0
0°-180°	9773.4	100.0

Coefficient of Utilization



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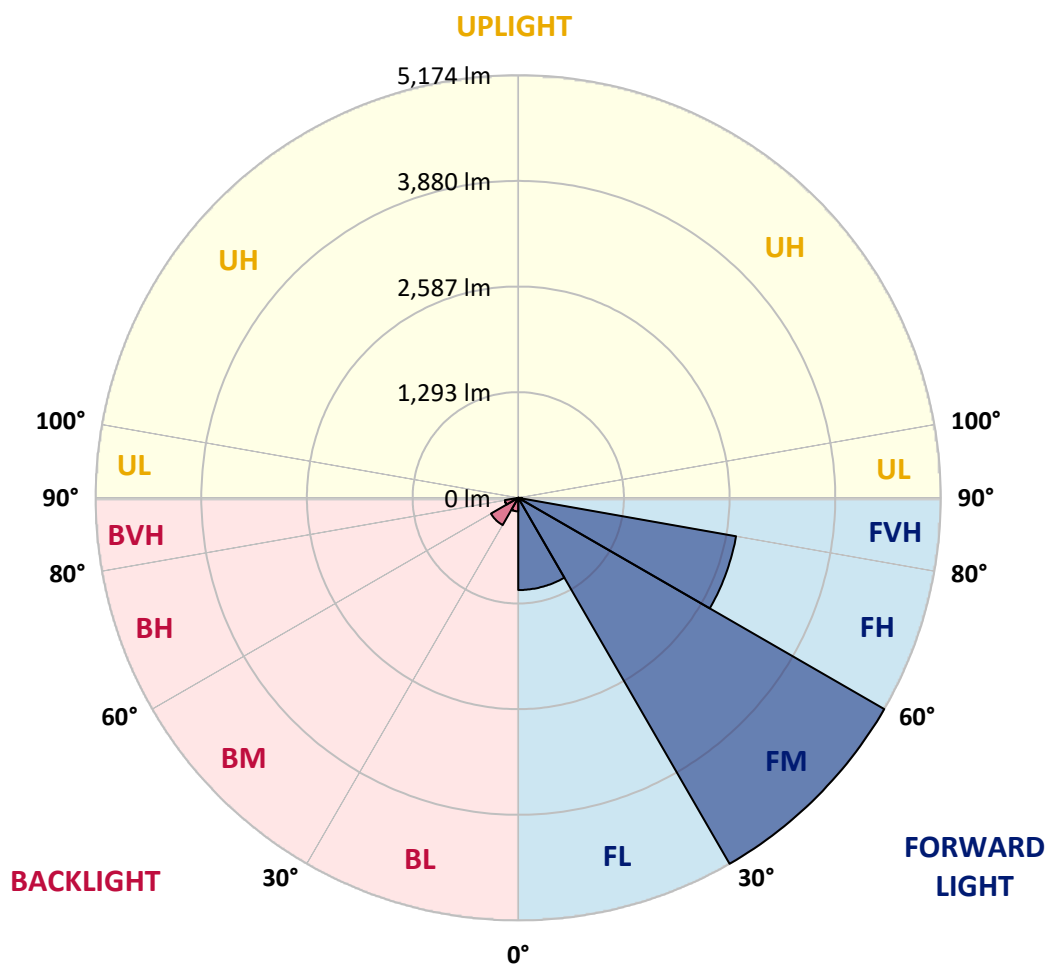
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1128.7	11.5			
FM	(30°-60°)	5173.8	52.9			
FH	(60°-80°)	2707.2	27.7			G2/5000
FVH	(80°-90°)	44.7	0.5			G1/100
BL	(0°-30°)	166.5	1.7	B1/500		
BM	(30°-60°)	385.3	3.9	B1/1000		
BH	(60°-80°)	166.5	1.7	B1/500		G1/500
BVH	(80°-90°)	0.8	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-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	1127.0	1127.0	1127.0	1127.0	1127.0	1127.0	1127.0	1127.0	1127.0	1127.0	1127.0
2.5°	1560.4	1570.1	1556.1	1529.4	1489.3	1463.2	1399.5	1339.5	1272.6	1251.4	1184.7
5°	1902.0	1910.5	1894.7	1865.6	1812.2	1761.3	1677.5	1551.8	1421.4	1379.4	1261.2
7.5°	2155.1	2160.0	2153.9	2127.2	2076.2	2018.5	1925.1	1776.4	1582.8	1536.7	1355.3
10°	2337.2	2353.0	2351.1	2340.8	2306.9	2260.1	2160.6	1991.3	1763.6	1704.2	1461.4
12.5°	2458.0	2475.6	2485.8	2508.9	2507.1	2477.3	2390.0	2210.9	1943.9	1874.1	1581.0
15°	2493.1	2512.0	2551.4	2604.8	2652.2	2667.4	2606.1	2426.4	2142.4	2053.2	1703.6
17.5°	2473.1	2502.2	2549.6	2633.9	2737.8	2806.3	2799.6	2634.6	2322.6	2220.7	1823.8
20°	2517.4	2545.4	2582.4	2653.4	2774.2	2898.6	2948.3	2833.6	2501.6	2394.8	1950.0
22.5°	2762.6	2757.8	2761.4	2772.9	2845.2	2968.4	3070.9	3014.4	2678.8	2569.6	2083.5
25°	3151.1	3129.2	3092.1	3029.7	3011.4	3070.9	3177.7	3174.7	2865.8	2748.6	2220.0
27.5°	3596.5	3592.8	3506.0	3355.5	3270.6	3247.5	3298.6	3330.6	3050.9	2925.9	2357.2
30°	4023.1	4032.9	3915.7	3748.2	3592.2	3501.8	3455.7	3478.7	3239.0	3117.0	2498.6
32.5°	4394.6	4404.8	4277.4	4081.4	3888.4	3779.2	3682.1	3625.0	3444.2	3311.3	2653.9
35°	4708.3	4718.7	4572.4	4355.7	4150.0	4051.1	3941.2	3785.2	3650.5	3526.7	2827.0
37.5°	4988.7	4985.7	4789.6	4571.2	4369.1	4290.8	4233.1	3982.4	3862.9	3743.4	3018.7
40°	5154.4	5167.1	4999.6	4758.7	4562.7	4505.6	4502.0	4227.1	4108.1	3992.2	3228.7
42.5°	5203.0	5225.4	5104.0	4906.2	4728.3	4666.4	4761.7	4491.7	4393.4	4280.5	3466.0
45°	5115.6	5137.4	5082.2	4945.0	4841.3	4801.2	4985.1	4765.9	4698.0	4586.4	3733.7
47.5°	4860.7	4888.0	4901.3	4872.2	4871.0	4911.6	5185.4	5054.9	5059.7	4945.6	4043.7
50°	4367.2	4413.3	4535.9	4639.2	4798.7	4999.0	5380.1	5368.0	5467.6	5369.3	4448.0
52.5°	3470.2	3535.8	3958.2	4240.4	4599.1	4982.6	5594.4	5870.6	6183.1	6039.3	5017.9
55°	2788.7	2788.7	3132.2	3660.2	4209.5	4874.6	5687.8	6197.0	6670.4	6636.5	5419.0
57.5°	2273.4	2300.7	2519.9	2986.5	3645.6	4617.3	5745.5	6402.2	7063.1	7038.3	5811.0
60°	1403.1	1462.1	1876.0	2336.6	3004.2	4159.0	5709.1	6609.7	7539.5	7559.6	6283.2
62.5°	790.2	812.0	996.5	1681.1	2336.0	3543.1	5430.6	6725.6	8148.9	8233.8	6770.0
65°	545.6	556.6	627.5	1046.3	1619.2	2820.9	4886.2	6653.5	8759.3	8931.1	7182.7
67.5°	396.3	401.8	446.1	639.1	960.7	2045.3	4032.9	6289.3	9082.8	9369.9	7261.6
70°	304.6	308.3	340.5	419.9	567.4	1262.4	2928.9	5565.2	8848.6	9191.5	6857.4
72.5°	247.6	251.2	276.1	310.8	376.3	746.5	1775.2	4519.6	7814.5	8184.6	5837.8
75°	208.8	213.6	236.1	258.5	295.0	479.5	832.7	3147.4	5876.6	6119.4	4059.5
77.5°	115.9	106.8	191.8	214.2	248.9	303.4	389.6	1852.3	3291.2	3358.6	1801.2
80°	72.3	74.6	152.3	172.4	191.2	152.9	178.5	713.1	1140.9	1083.9	349.0
82.5°	4.2	9.7	117.2	124.4	131.1	65.5	67.3	242.1	274.9	252.5	61.9
85°	0.0	0.0	53.4	43.0	45.5	18.9	19.4	56.5	37.0	40.1	12.1
87.5°	0.0	0.0	0.0	1.2	0.0	1.8	3.7	4.8	1.8	2.5	4.2
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°	1127.0	1127.0	1127.0	1127.0	1127.0	1127.0	1127.0	1127.0	1127.0	1127.0	1127.0
2.5°	1142.2	1099.7	1013.5	929.2	860.6	796.8	751.3	708.3	686.4	685.2	684.0
5°	1176.8	1087.5	915.2	762.9	640.3	541.9	478.3	432.8	409.7	401.8	400.6
7.5°	1225.3	1091.2	829.0	617.3	472.7	388.4	352.0	337.4	332.6	327.1	326.0
10°	1286.6	1099.7	751.9	497.0	372.6	330.2	315.6	309.5	305.9	302.3	301.0
12.5°	1355.3	1107.6	675.5	412.7	327.7	305.9	295.6	288.2	283.4	279.2	278.0
15°	1422.0	1112.4	595.9	353.8	304.6	287.1	276.1	268.2	261.6	256.8	256.1
17.5°	1488.1	1119.1	521.3	318.7	285.9	268.2	257.3	247.6	242.1	236.7	236.1
20°	1561.6	1117.9	450.9	293.8	267.0	249.5	237.9	228.8	223.3	217.3	216.7
22.5°	1629.5	1111.8	389.0	272.5	247.6	230.6	217.9	208.8	203.4	198.4	197.8
25°	1707.9	1107.0	337.4	253.1	229.4	212.4	198.4	189.9	183.9	179.7	179.1
27.5°	1783.1	1099.7	299.8	235.4	211.8	195.5	182.0	172.4	166.9	163.9	163.9
30°	1857.1	1097.9	285.9	218.5	196.0	179.7	166.3	157.2	152.9	151.7	151.1
32.5°	1946.4	1102.7	291.9	212.4	181.4	165.1	152.3	145.7	141.4	141.4	141.4
35°	2041.6	1101.6	301.0	217.9	171.8	150.5	140.8	136.5	132.3	132.3	132.3
37.5°	2161.2	1103.3	308.3	226.9	168.1	138.4	132.9	127.4	125.0	125.0	125.0
40°	2339.6	1163.5	304.6	234.8	166.9	129.9	119.0	117.2	115.3	115.3	115.3
42.5°	2558.1	1294.0	309.5	235.4	166.3	123.8	109.3	112.9	108.6	108.0	107.4
45°	2797.2	1436.5	340.5	222.7	165.6	120.7	104.3	108.6	102.0	102.0	102.0
47.5°	3034.5	1578.0	372.1	204.5	163.9	120.1	100.1	97.7	95.9	96.5	96.5
50°	3361.6	1693.3	384.2	179.7	159.6	119.0	92.2	92.9	91.6	92.9	92.9
52.5°	3717.9	1717.5	369.6	151.7	147.5	115.3	86.8	89.2	88.6	89.8	89.8
55°	3940.0	1691.5	305.2	126.3	128.6	100.8	81.3	86.2	86.2	86.2	86.2
57.5°	4169.4	1580.3	216.7	102.6	106.8	82.5	76.5	83.1	82.5	81.9	81.9
60°	4334.5	1400.8	142.6	84.4	85.0	68.0	71.0	78.3	77.7	74.6	74.6
62.5°	4457.7	1202.2	91.6	71.6	65.0	61.3	65.0	71.0	68.6	61.9	60.7
65°	4443.7	927.3	70.4	61.3	53.4	53.4	56.5	61.9	54.6	43.7	42.4
67.5°	4184.6	627.5	58.2	51.6	44.9	44.3	46.7	51.6	46.7	37.0	35.8
70°	3721.5	410.3	46.7	40.1	35.8	32.8	37.6	44.3	39.5	29.7	28.5
72.5°	3020.6	250.0	35.2	29.1	26.1	21.2	29.7	36.4	31.6	21.8	20.6
75°	1954.3	127.4	24.3	18.9	13.9	12.7	21.8	27.3	21.8	13.3	11.5
77.5°	747.7	53.4	13.3	8.5	7.3	6.0	12.1	16.4	9.1	3.1	2.5
80°	143.8	22.4	6.7	4.2	3.7	2.5	1.8	1.2	0.0	0.0	0.0
82.5°	24.9	7.3	2.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.1	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)