

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: P966864

Luminaire Tested: **NAV-SB4C-835-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966864
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-835-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21807.9 lumens
Efficiency: N/A
Efficacy: 108.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - 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

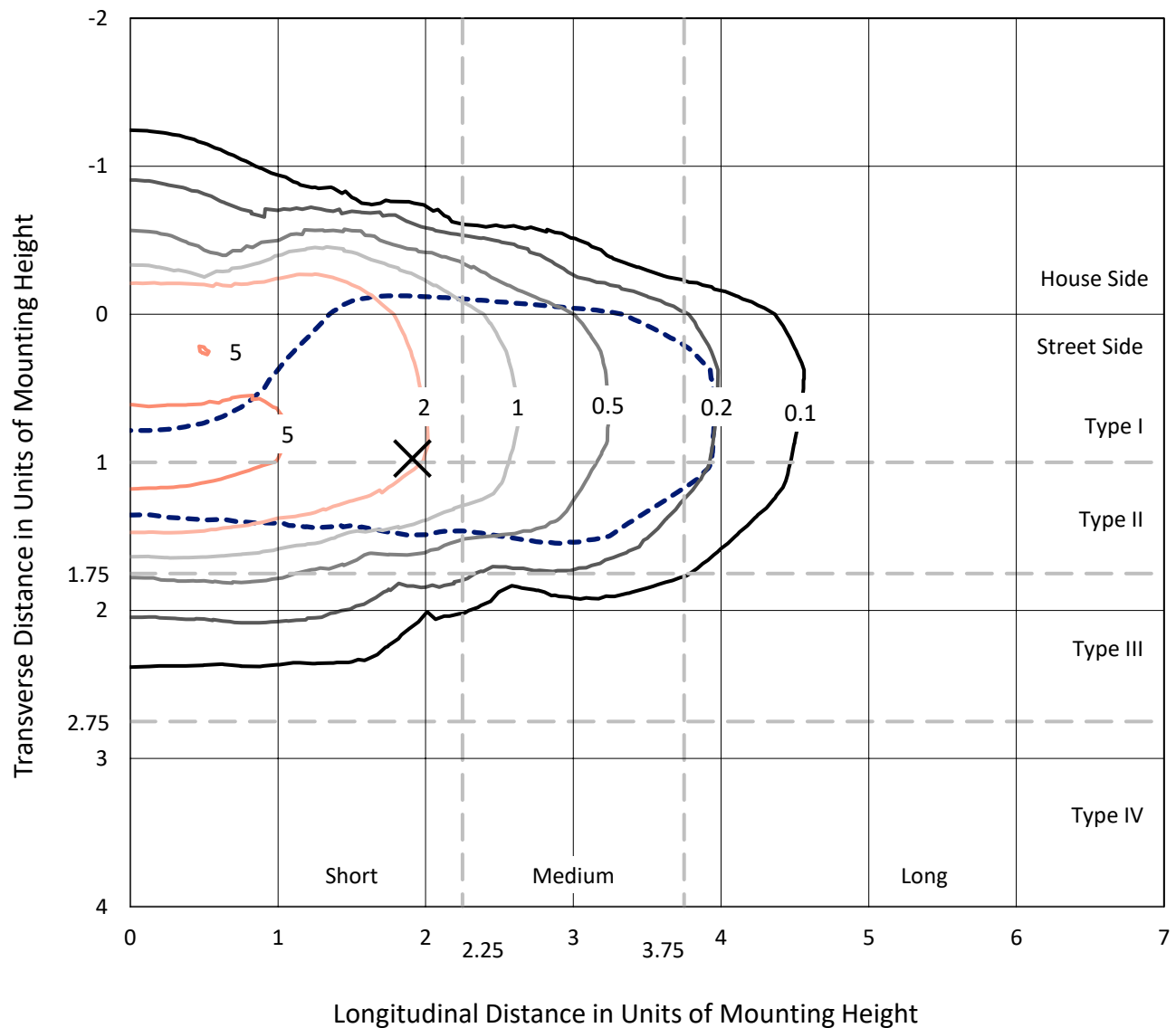


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Iso-Footcandle Lines of Horizontal Illumination

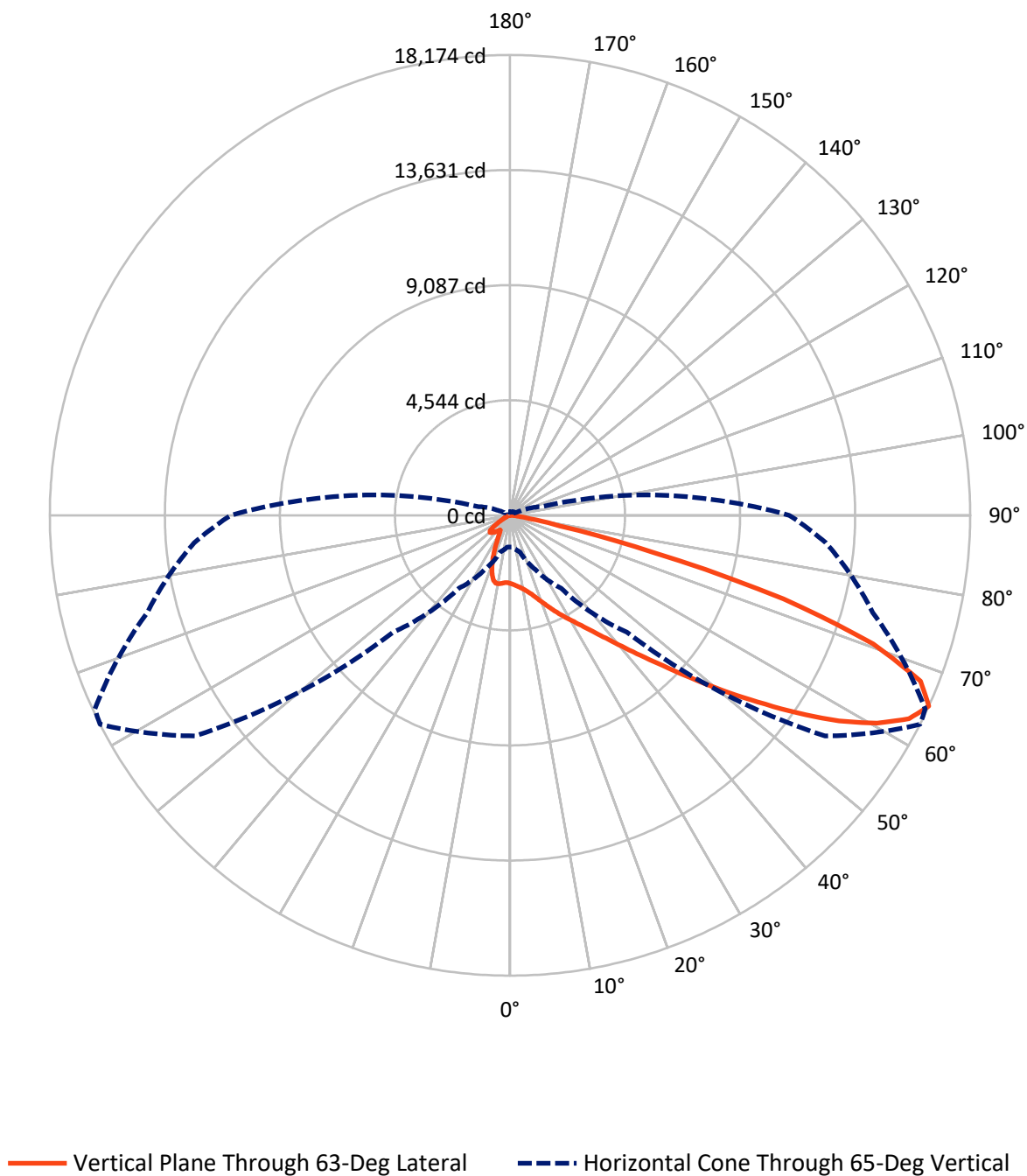
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.4 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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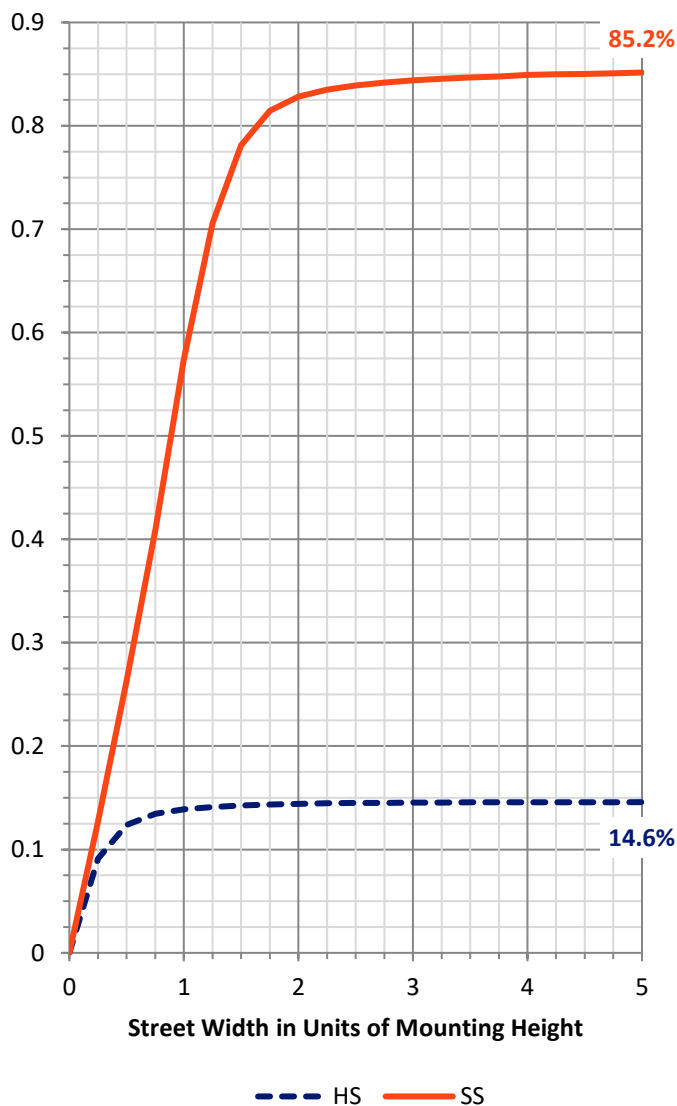
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3205.6	0.0	3205.6
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	18602.3	0.0	18602.3
	% Fixture	85.3	0.0	85.3
Total	Lumens	21807.9	0.0	21807.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.6	1.2
10°-20°	703.6	3.2
20°-30°	1225.2	5.6
30°-40°	2208.3	10.1
40°-50°	4379.7	20.1
50°-60°	5965.9	27.4
60°-70°	4761.9	21.8
70°-80°	2154.9	9.9
80°-90°	154.9	0.7
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°	21807.9	100.0
0°-180°	21807.9	100.0

Coefficient of Utilization



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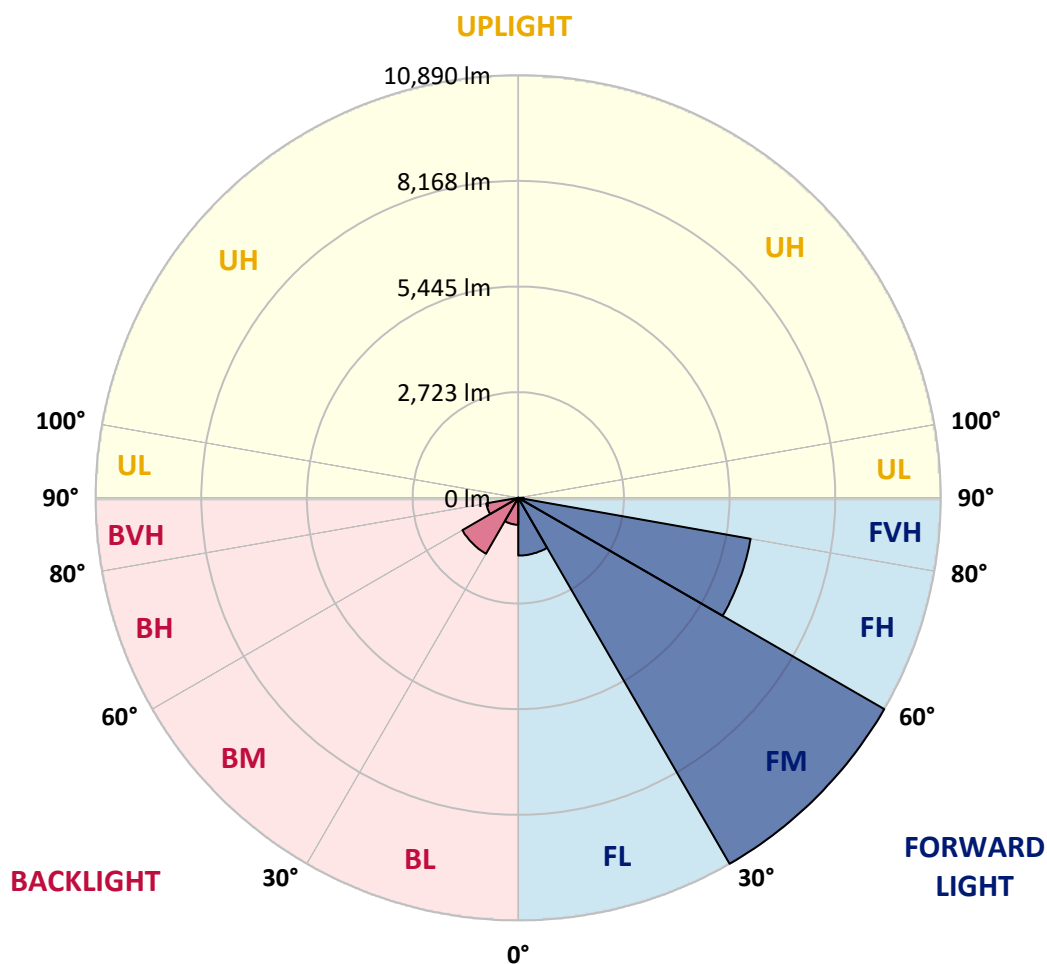
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1488.7	6.8			
FM	(30°-60°)	10890.3	49.9			
FH	(60°-80°)	6079.9	27.9			G3/7500
FVH	(80°-90°)	143.4	0.7			G2/225
BL	(0°-30°)	693.7	3.2	B2/1000		
BM	(30°-60°)	1663.5	7.6	B2/2500		
BH	(60°-80°)	836.8	3.8	B2/1000		G2/1000
BVH	(80°-90°)	11.5	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	2691.5	2691.5	2691.5	2691.5	2691.5	2691.5	2691.5	2691.5	2691.5	2691.5	2691.5
2.5°	2754.5	2747.0	2757.6	2753.0	2750.0	2744.0	2741.1	2738.0	2732.0	2727.5	2709.5
5°	2762.1	2757.6	2768.0	2777.0	2786.1	2795.1	2799.5	2805.5	2799.5	2787.5	2769.5
7.5°	2699.0	2696.1	2718.5	2745.6	2786.1	2820.5	2858.0	2879.0	2880.6	2876.0	2856.6
10°	2694.5	2687.0	2709.5	2742.5	2795.1	2856.6	2922.6	2967.6	2973.5	2993.1	2972.1
12.5°	2765.0	2757.6	2789.0	2825.0	2879.0	2943.6	3024.6	3087.6	3096.6	3123.6	3108.6
15°	2883.5	2873.1	2909.1	2955.6	3024.6	3098.1	3183.6	3240.6	3248.1	3281.1	3254.1
17.5°	3021.6	3011.0	3053.1	3102.6	3177.6	3278.2	3377.2	3440.1	3449.1	3470.1	3420.6
20°	3198.6	3185.1	3218.1	3263.1	3342.6	3462.7	3581.1	3671.2	3669.7	3669.7	3588.6
22.5°	3404.1	3383.1	3411.6	3447.7	3522.6	3668.2	3825.7	3932.2	3932.2	3890.2	3756.7
25°	3624.7	3603.7	3635.2	3668.2	3734.2	3899.2	4083.8	4215.8	4221.8	4149.8	3936.7
27.5°	3900.7	3873.7	3897.8	3936.7	3975.8	4143.8	4362.8	4515.8	4518.8	4407.8	4107.8
30°	4431.8	4355.3	4280.3	4238.3	4256.3	4422.9	4656.9	4826.4	4841.4	4688.3	4293.8
32.5°	5404.0	5389.0	5125.0	4779.9	4599.9	4722.9	4985.4	5189.5	5198.5	5001.9	4535.3
35°	6914.8	6896.8	6472.3	5815.1	5228.5	5125.0	5384.5	5626.0	5620.1	5398.1	4848.9
37.5°	8718.1	8701.6	8142.0	7262.8	6313.2	5732.6	5899.1	6152.7	6190.2	5899.1	5253.9
40°	10258.9	10197.4	9843.4	8995.7	7753.5	6740.8	6631.2	6799.2	6838.3	6493.3	5768.6
42.5°	11426.2	11373.6	11193.6	10664.0	9496.8	8232.1	7493.9	7558.5	7601.9	7187.8	6359.7
45°	12030.7	12018.7	12090.8	12041.3	11273.2	10062.4	8727.2	8458.6	8475.1	7957.5	7030.4
47.5°	12116.3	12110.3	12438.9	12903.9	12800.4	12126.8	10310.0	9580.8	9522.2	8826.2	7759.5
50°	11612.2	11600.2	12230.3	13102.0	13820.6	13861.1	12107.3	10845.5	10716.5	9724.8	8520.1
52.5°	10002.4	9999.4	11034.5	12485.3	14179.1	15379.4	13883.6	12234.8	12018.7	10676.0	9324.2
55°	7696.4	7752.0	8938.7	10653.5	13525.1	16110.0	15478.4	13777.1	13445.5	11633.2	10065.4
57.5°	5452.1	5533.1	6706.3	8233.5	11496.7	15678.0	16557.1	15322.4	14965.3	12587.4	10817.0
60°	2928.5	3000.6	4175.3	5998.1	8553.1	14066.7	17125.7	16663.6	16326.1	13493.5	11495.2
62.5°	1744.9	1768.8	2254.9	3872.2	5785.1	10746.5	16884.2	17685.4	17407.8	14254.2	12084.7
65°	1252.8	1257.3	1501.8	2364.5	3512.2	6529.2	15190.4	18174.4	18088.9	14827.3	12521.4
67.5°	1054.7	1051.6	1153.7	1570.8	2393.0	3270.6	11642.2	17482.8	17845.9	15190.4	12768.9
70°	904.7	909.2	1029.2	1150.8	1798.9	1851.4	5788.1	15221.9	15996.0	15286.3	12753.9
72.5°	673.6	688.6	799.6	1048.7	1357.7	1273.8	1998.3	11286.6	12686.4	14402.7	12092.2
75°	475.6	483.1	562.6	882.1	1012.7	927.2	1020.2	5834.6	7629.0	11042.1	9897.4
77.5°	366.0	379.6	426.1	616.6	997.7	651.1	624.1	2019.4	3102.6	6670.3	6785.8
80°	198.0	222.0	307.6	445.6	700.6	460.6	309.0	804.1	1051.6	3119.1	2616.5
82.5°	102.0	114.0	214.5	321.0	399.0	402.1	153.0	334.6	433.6	963.2	358.5
85°	40.5	49.5	144.0	177.0	205.5	198.0	69.0	135.0	156.0	267.0	109.5
87.5°	9.0	15.0	52.5	40.5	39.1	42.0	16.5	31.5	30.0	31.5	19.5
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°	2691.5	2691.5	2691.5	2691.5	2691.5	2691.5	2691.5	2691.5	2691.5	2691.5	2691.5
2.5°	2708.0	2702.0	2685.5	2667.5	2646.4	2634.5	2627.0	2625.5	2615.0	2607.5	2615.0
5°	2753.0	2747.0	2715.5	2678.0	2637.5	2606.0	2576.0	2549.0	2510.0	2502.4	2499.5
7.5°	2843.0	2826.5	2775.5	2724.6	2648.0	2556.5	2445.4	2317.9	2204.0	2169.4	2152.9
10°	2954.0	2931.6	2867.0	2777.0	2607.5	2358.4	2089.9	1840.8	1642.8	1587.3	1566.3
12.5°	3080.1	3060.5	2975.1	2808.5	2438.0	1986.3	1575.3	1266.3	1074.2	1026.2	1012.7
15°	3230.1	3201.6	3083.1	2760.5	2134.9	1509.3	1081.7	898.7	829.6	820.6	811.7
17.5°	3389.2	3342.6	3179.1	2588.0	1726.8	1072.7	835.7	783.1	753.2	744.2	739.6
20°	3534.7	3474.6	3236.1	2327.0	1290.3	835.7	748.7	714.1	687.2	676.6	670.7
22.5°	3680.2	3594.7	3236.1	1971.4	967.7	741.2	687.2	655.6	624.1	610.6	603.1
25°	3831.8	3717.7	3179.1	1575.3	778.7	679.7	628.6	594.1	567.1	550.6	544.6
27.5°	3978.7	3821.2	3048.6	1200.3	693.1	625.7	574.6	541.6	516.1	504.1	504.1
30°	4118.2	3923.3	2865.5	910.7	637.7	573.1	525.1	496.6	471.1	459.1	460.6
32.5°	4307.4	4052.2	2670.5	747.1	589.6	523.6	480.1	453.0	430.6	421.6	421.6
35°	4569.9	4242.8	2502.4	733.6	549.1	483.1	439.6	414.1	391.5	384.1	384.1
37.5°	4941.9	4550.4	2414.0	823.7	516.1	447.1	406.6	379.6	358.5	352.6	351.1
40°	5401.0	4967.5	2461.9	913.7	493.6	415.5	376.6	349.5	331.6	324.1	322.6
42.5°	5945.6	5482.0	2727.5	982.7	478.6	388.6	348.1	318.1	306.1	303.1	303.1
45°	6571.3	6047.6	3134.0	1056.2	454.6	363.1	319.6	297.0	288.0	286.6	285.1
47.5°	7282.4	6668.8	3605.1	1147.7	430.6	339.1	297.0	282.1	274.6	271.5	271.5
50°	7987.5	7294.4	4089.7	1198.7	411.1	316.5	279.0	267.0	261.1	259.5	259.5
52.5°	8725.6	7938.0	4481.3	1150.8	394.6	298.6	264.0	255.0	249.1	247.5	247.5
55°	9429.3	8458.6	4548.8	976.7	361.5	280.5	247.5	243.0	235.5	235.5	234.0
57.5°	10035.4	8719.7	4071.8	717.1	328.5	253.6	231.0	226.5	220.6	219.0	217.5
60°	10592.0	8644.6	3143.1	483.1	292.5	226.5	210.0	207.0	201.0	193.5	192.1
62.5°	10905.6	8314.6	2149.9	315.1	256.6	198.0	186.0	184.5	171.1	156.0	153.0
65°	11024.1	7636.5	1341.2	229.5	214.5	169.5	160.5	157.5	138.1	121.6	120.0
67.5°	10920.6	6520.2	676.6	181.5	169.5	141.0	132.0	132.0	118.5	103.5	102.0
70°	10506.5	4887.9	285.1	145.5	130.5	108.0	108.0	114.0	100.6	84.0	82.5
72.5°	9607.8	3288.6	151.5	111.0	97.5	76.5	88.6	93.0	79.5	63.0	63.0
75°	7637.9	2005.9	105.1	82.5	61.5	54.0	67.5	70.5	54.0	42.0	40.5
77.5°	5224.0	1152.2	70.5	52.5	39.1	31.5	46.5	43.5	28.5	19.5	21.0
80°	2294.0	480.1	40.5	24.0	15.0	12.0	16.5	12.0	9.0	6.0	6.0
82.5°	268.5	112.5	15.0	9.0	6.0	3.0	1.5	0.0	0.0	0.0	0.0
85°	55.6	13.5	7.5	3.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	10.5	3.0	1.5	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)