

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: P963017

Luminaire Tested: **NAV-SB2D-740-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963017
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-740-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16115 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 147.6
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



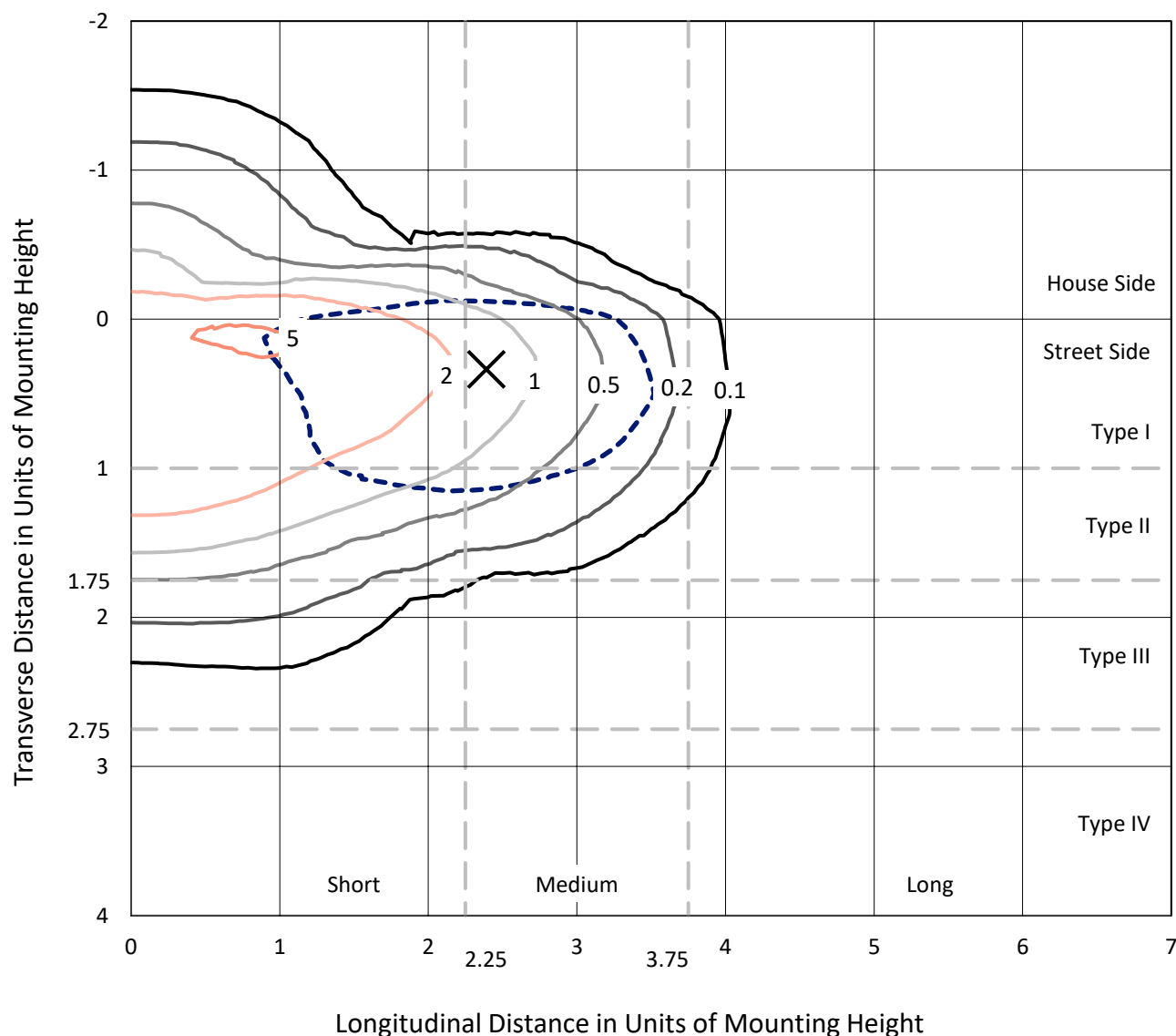
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

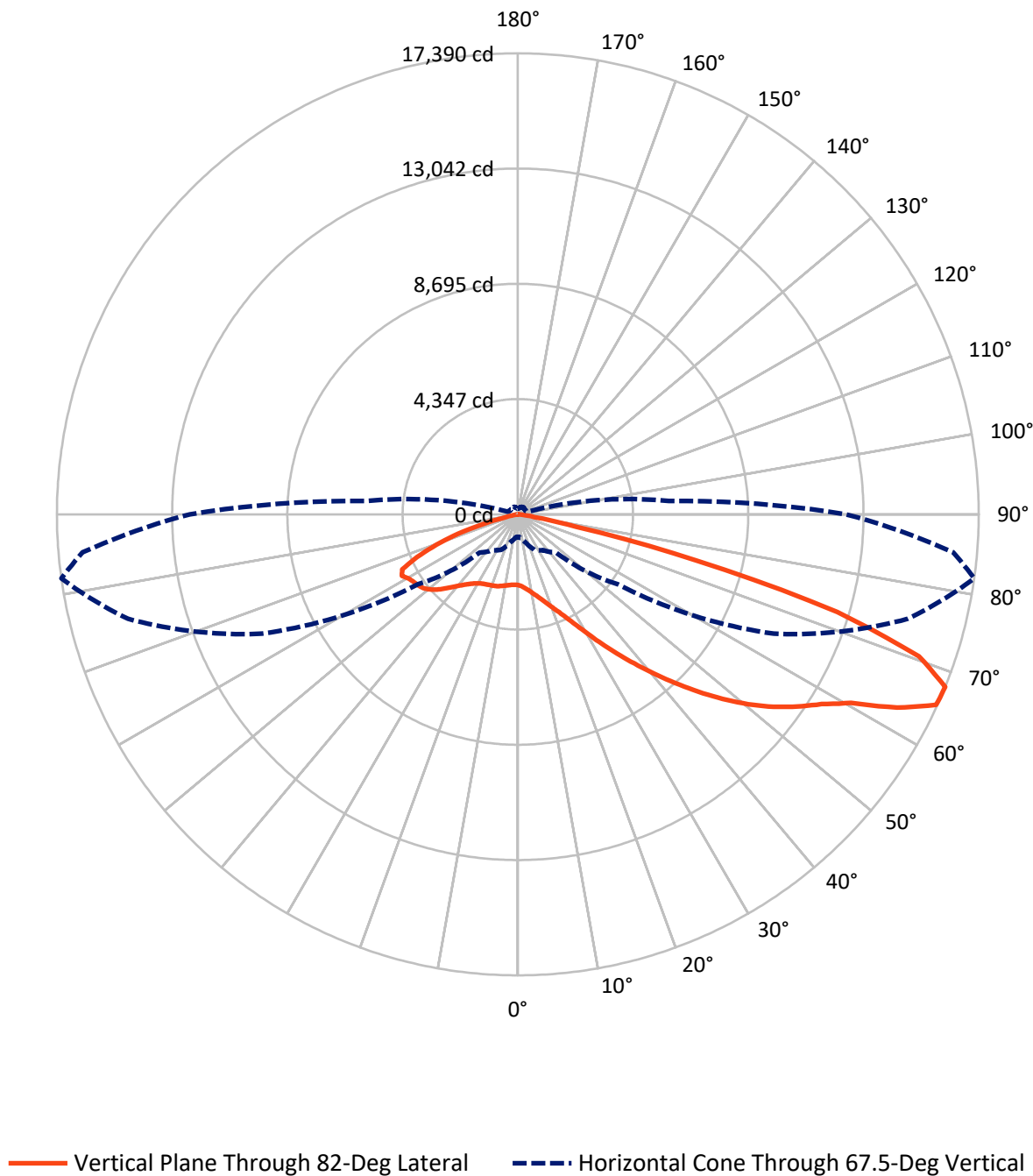


Based on 25 foot mounting height. Maximum calculated value = 5.6 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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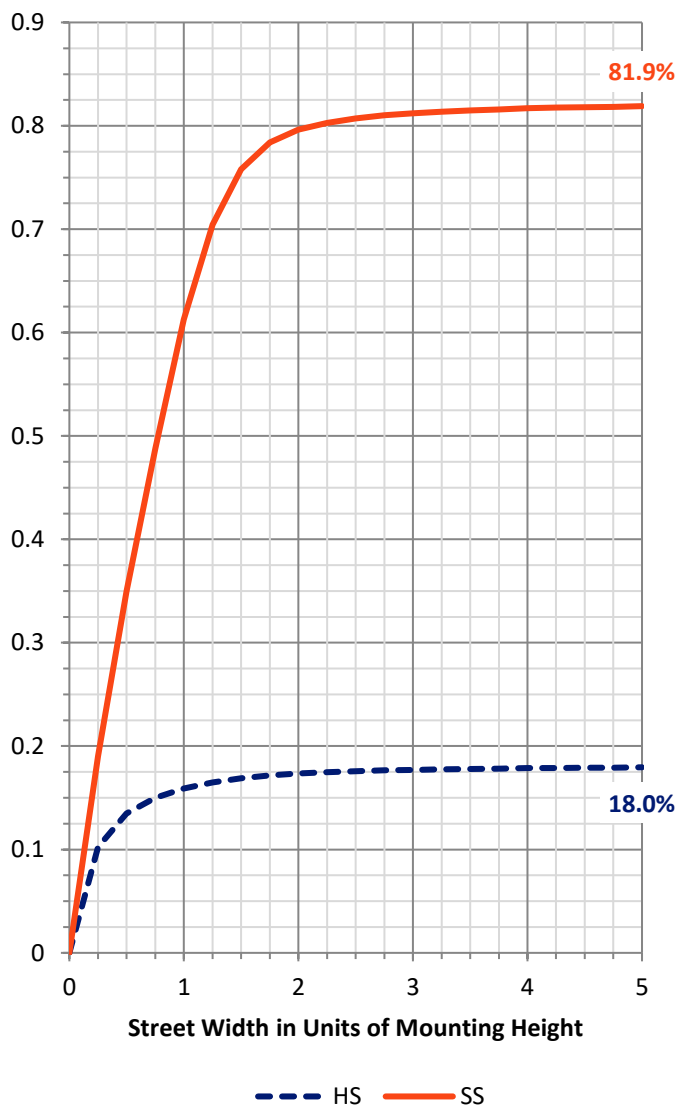
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2919.1	0.0	2919.1
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	13196.0	0.0	13196.0
	% Fixture	81.9	0.0	81.9
Total	Lumens	16115.0	0.0	16115.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.9	1.5
10°-20°	618.1	3.8
20°-30°	990.0	6.1
30°-40°	1750.6	10.9
40°-50°	3067.2	19.0
50°-60°	4090.7	25.4
60°-70°	3808.3	23.6
70°-80°	1461.6	9.1
80°-90°	90.8	0.6
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°	16115.0	100.0
0°-180°	16115.0	100.0

Coefficient of Utilization



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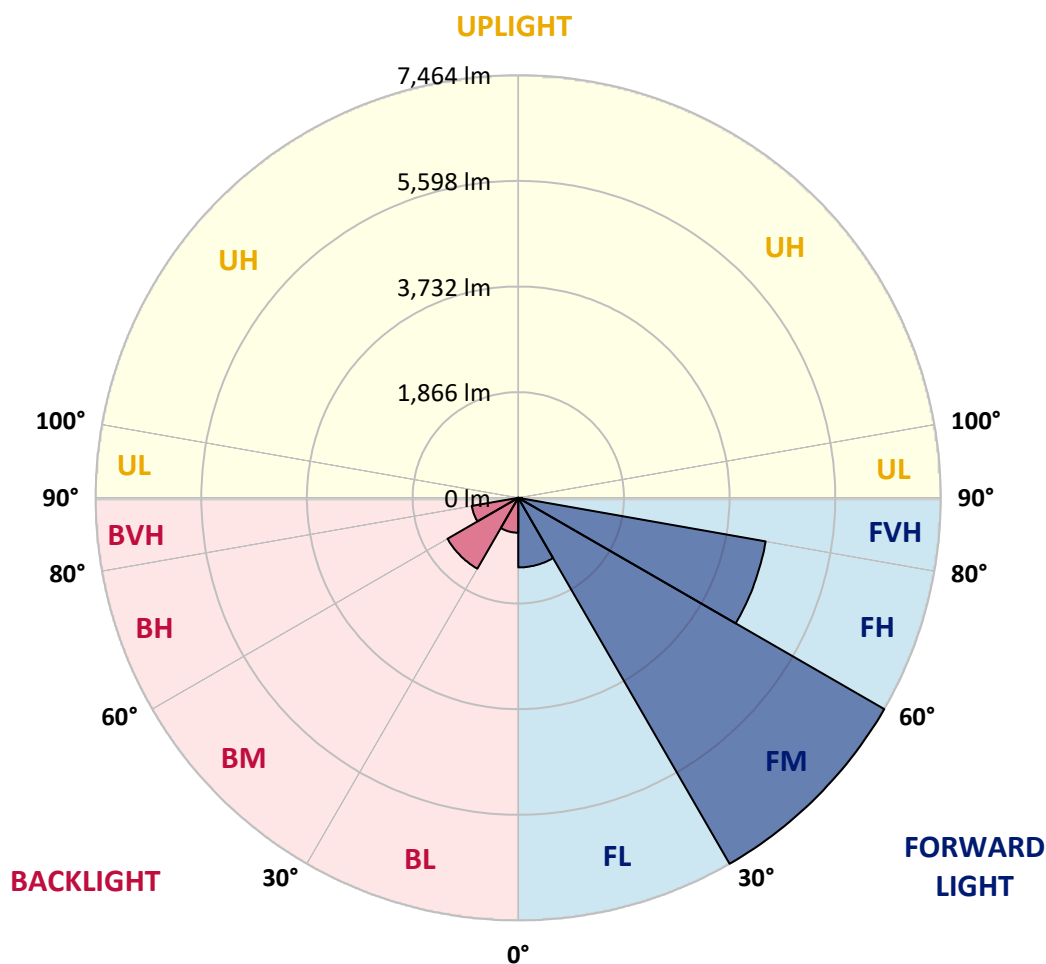
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1229.4	7.6			
FM	(30°-60°)	7463.8	46.3			
FH	(60°-80°)	4436.7	27.5			G2/5000
FVH	(80°-90°)	66.0	0.4			G1/100
BL	(0°-30°)	616.5	3.8	B2/1000		
BM	(30°-60°)	1444.6	9.0	B2/2500		
BH	(60°-80°)	833.2	5.2	B2/1000		G2/1000
BVH	(80°-90°)	24.8	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7
2.5°	2821.7	2837.9	2828.7	2824.1	2815.9	2804.3	2795.1	2766.1	2735.8	2716.1	2709.2
5°	2878.6	2894.8	2893.7	2898.3	2904.1	2907.6	2905.3	2872.8	2829.8	2796.2	2776.4
7.5°	2829.8	2848.4	2863.4	2886.7	2927.3	2970.2	2991.2	2984.2	2940.0	2893.7	2869.3
10°	2691.8	2711.5	2747.4	2801.9	2887.8	2980.7	3058.4	3094.4	3066.5	3015.4	2981.8
12.5°	2438.8	2458.6	2529.3	2647.7	2791.6	2952.8	3101.3	3197.6	3204.6	3153.5	3114.1
15°	2154.5	2174.3	2249.7	2398.2	2617.5	2876.3	3124.5	3306.6	3368.2	3324.1	3276.5
17.5°	1978.2	1995.6	2052.5	2172.0	2400.5	2723.1	3116.4	3422.7	3563.1	3528.3	3471.5
20°	1924.8	1939.9	1966.6	2050.1	2240.4	2564.1	3063.0	3531.7	3773.1	3753.3	3689.6
22.5°	1981.7	1995.6	2003.8	2040.9	2160.4	2459.7	2995.8	3643.2	4016.8	4019.1	3941.3
25°	2112.8	2126.8	2117.4	2140.6	2192.9	2427.2	2970.2	3774.3	4323.0	4348.6	4260.4
27.5°	2328.6	2329.7	2307.7	2306.6	2314.7	2476.0	2996.9	3914.7	4709.5	4757.0	4648.0
30°	2761.4	2743.9	2659.3	2567.6	2525.8	2622.2	3071.2	4080.5	5165.4	5250.0	5113.2
32.5°	3428.5	3403.0	3247.5	3028.3	2807.8	2857.7	3204.6	4269.7	5662.0	5815.1	5648.1
35°	4152.5	4145.5	3983.2	3657.1	3271.9	3193.0	3421.6	4518.0	6203.8	6447.5	6249.1
37.5°	4825.5	4822.0	4729.1	4345.1	3876.3	3660.6	3769.6	4842.8	6784.0	7136.7	6902.2
40°	5440.4	5450.8	5358.0	5014.6	4542.4	4260.4	4243.0	5244.3	7429.0	7887.4	7608.9
42.5°	5971.8	5983.3	5889.3	5635.3	5200.2	4924.1	4824.3	5736.2	8059.1	8693.7	8364.2
45°	6332.7	6404.5	6390.6	6187.6	5875.5	5588.9	5522.8	6353.5	8777.3	9548.8	9162.5
47.5°	6434.7	6500.9	6605.3	6633.1	6442.8	6160.9	6239.8	7097.2	9503.6	10405.1	9965.4
50°	6182.9	6244.4	6461.4	6750.3	6882.6	6795.5	6937.1	7894.2	10247.2	11259.0	10753.2
52.5°	5686.4	5749.0	6022.8	6479.9	7019.5	7293.3	7636.8	8679.8	10967.8	12067.7	11499.2
55°	4968.2	5034.3	5385.9	5903.3	6758.4	7498.7	8220.3	9464.1	11627.9	12795.2	12172.1
57.5°	3991.2	4039.9	4405.4	5129.4	6101.7	7294.4	8650.8	10320.3	12249.9	13509.9	12839.3
60°	2601.2	2644.2	3068.8	3876.3	5013.4	6612.2	8736.6	11275.2	13075.9	14439.2	13738.4
62.5°	1729.9	1758.9	2010.7	2603.6	3530.6	5302.3	8234.2	12037.5	14287.3	16056.6	15280.4
65°	1186.9	1216.0	1467.7	1880.8	2281.0	3507.4	6789.7	11936.5	15384.8	17340.9	16423.3
67.5°	847.0	871.4	1084.9	1474.7	1651.1	2037.4	4602.7	10646.4	15227.0	17389.7	16484.8
70°	606.8	620.7	797.0	1148.6	1312.2	1224.1	2559.5	8142.6	13332.4	16057.8	15229.3
72.5°	424.7	429.3	553.4	874.8	1057.0	893.4	1218.2	5428.8	10083.6	12603.7	11806.7
75°	287.7	293.6	372.5	641.6	848.2	682.2	645.1	2911.0	5919.6	6976.6	6253.7
77.5°	176.4	178.7	240.2	438.6	634.7	519.8	415.3	1233.4	2290.4	2248.5	1916.7
80°	99.7	99.7	153.1	272.6	432.8	335.3	291.2	524.4	725.2	636.9	561.6
82.5°	55.7	56.9	111.4	169.4	286.6	198.4	160.1	242.5	313.2	277.3	241.3
85°	23.2	25.5	68.5	80.1	136.9	98.6	65.0	102.1	116.0	103.2	75.4
87.5°	2.4	3.5	20.9	15.1	16.2	19.7	9.3	19.7	16.2	16.2	11.6
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°	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7	2669.7
2.5°	2687.1	2669.7	2625.6	2574.6	2507.3	2474.8	2430.7	2400.5	2375.0	2377.4	2354.1
5°	2739.3	2695.2	2596.6	2473.6	2320.5	2211.4	2095.4	2015.4	1950.4	1936.4	1905.2
7.5°	2811.3	2741.7	2568.8	2347.1	2088.4	1892.4	1717.2	1604.6	1524.6	1499.1	1473.5
10°	2904.1	2803.2	2532.8	2188.2	1815.8	1566.3	1378.3	1290.2	1235.6	1217.1	1203.1
12.5°	3012.0	2873.9	2485.2	1994.4	1535.0	1294.8	1175.4	1131.2	1113.9	1108.0	1104.5
15°	3147.8	2962.1	2413.3	1764.7	1297.1	1128.9	1077.9	1072.0	1074.4	1072.0	1070.9
17.5°	3309.0	3058.4	2296.1	1528.1	1137.0	1044.2	1025.6	1030.3	1036.1	1034.9	1032.6
20°	3485.4	3153.5	2146.5	1318.0	1028.0	983.9	973.4	978.1	982.8	980.4	979.3
22.5°	3686.1	3255.6	1980.5	1154.5	954.9	928.2	916.6	917.8	917.8	913.1	910.8
25°	3926.3	3368.2	1806.5	1038.4	899.2	878.3	864.4	859.8	852.8	838.9	836.5
27.5°	4212.9	3487.7	1639.4	957.2	855.1	835.4	819.2	807.5	790.2	766.9	764.6
30°	4535.4	3632.7	1497.8	906.1	820.3	800.5	782.0	764.6	739.0	710.0	707.8
32.5°	4914.8	3788.2	1394.6	872.5	788.9	768.0	746.0	725.2	697.3	668.3	669.4
35°	5367.3	3976.2	1334.2	849.3	764.6	736.8	712.4	689.2	668.3	642.8	640.4
37.5°	5858.1	4175.7	1315.7	837.7	748.4	705.4	677.6	661.3	659.0	643.9	642.8
40°	6395.3	4412.4	1329.6	830.8	730.9	675.3	645.1	641.6	647.4	620.7	621.9
42.5°	6963.7	4693.2	1352.8	822.6	706.6	645.1	616.1	616.1	611.4	574.3	574.3
45°	7578.7	5016.9	1376.1	802.9	677.6	614.9	592.9	584.8	565.1	529.1	527.9
47.5°	8198.3	5346.4	1393.5	766.9	642.8	589.4	569.7	551.1	522.1	489.6	488.4
50°	8786.5	5642.2	1374.9	713.5	603.3	565.1	544.2	518.6	487.3	465.2	461.8
52.5°	9312.1	5898.7	1296.0	650.9	561.6	539.6	520.9	494.3	468.7	445.6	443.2
55°	9769.3	6106.3	1156.7	591.7	524.4	517.4	498.9	465.2	430.5	410.7	408.4
57.5°	10207.8	6264.2	982.8	542.9	490.8	493.1	465.2	435.1	402.6	381.7	379.4
60°	10791.4	6475.3	806.4	497.7	454.8	461.8	431.6	409.6	369.0	342.2	338.8
62.5°	11724.3	6803.6	640.4	442.1	413.1	415.3	402.6	375.9	327.2	295.8	293.6
65°	12464.5	6683.0	504.7	381.7	365.5	369.0	369.0	340.0	287.7	251.7	248.3
67.5°	12381.0	5722.3	402.6	322.6	320.2	322.6	330.7	306.3	255.2	226.2	221.6
70°	11405.2	4551.6	322.6	268.0	278.5	272.6	295.8	279.6	229.7	200.7	197.2
72.5°	9306.3	3278.9	246.0	221.6	213.5	222.7	266.8	251.7	191.5	159.0	155.5
75°	5438.0	1749.7	183.3	175.2	154.3	185.6	236.7	214.6	146.2	117.2	113.7
77.5°	1770.5	610.3	134.6	128.7	114.9	149.6	201.9	181.0	119.5	92.9	89.4
80°	474.6	184.5	91.6	84.7	74.2	111.4	160.1	143.9	85.9	60.4	59.1
82.5°	190.2	77.7	53.4	47.6	40.6	76.6	126.5	116.0	63.9	38.3	38.3
85°	61.5	25.5	19.7	15.1	18.6	47.6	75.4	78.9	45.2	19.7	15.1
87.5°	8.1	3.5	3.5	4.6	3.5	8.1	23.2	22.0	12.8	2.4	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)