

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: P967884

Luminaire Tested: **NAV-SB5A-830-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967884
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-SB5A-830-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 350mA 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: 15239.7 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

Input Watts (W): 141.7
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

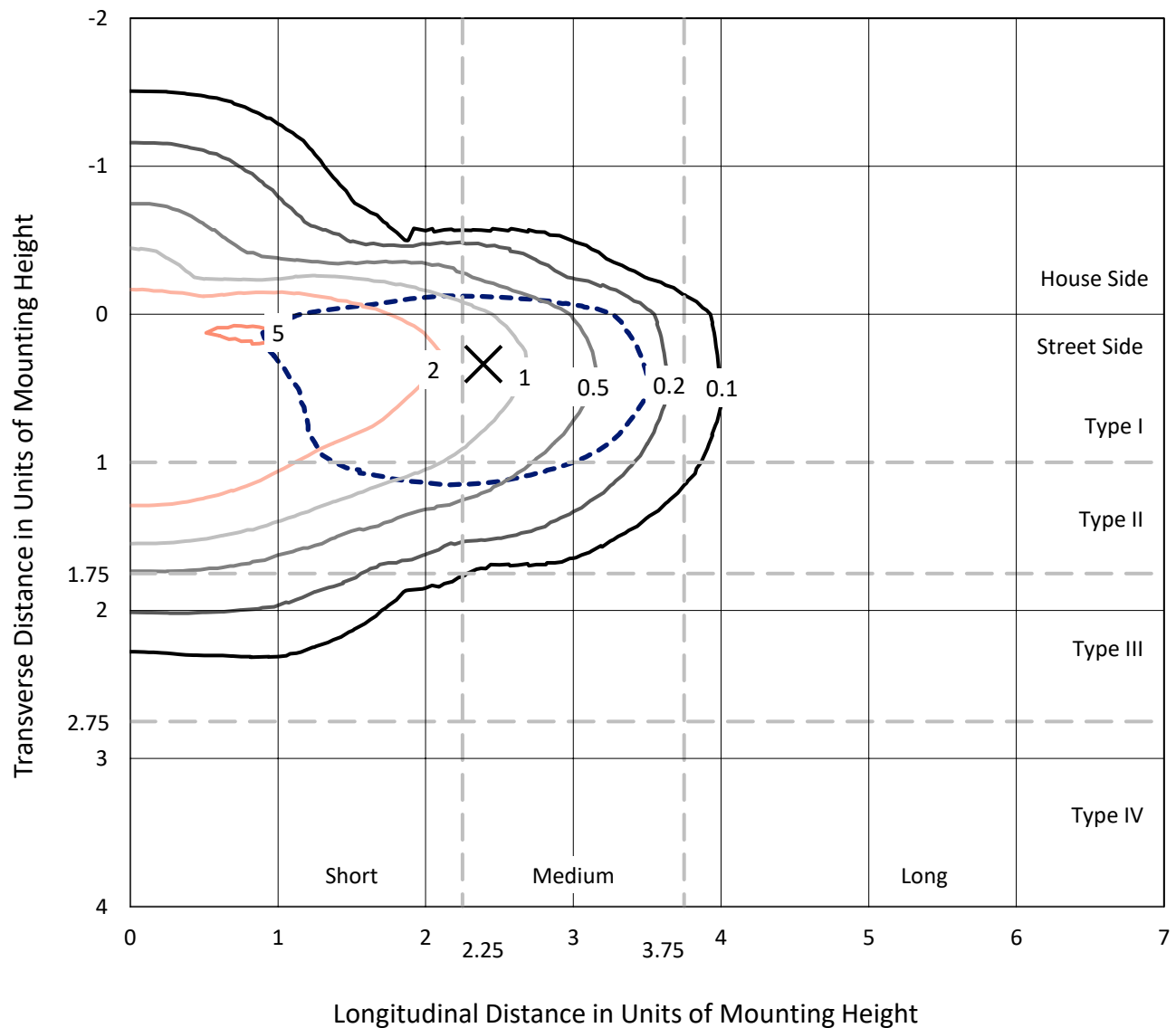


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Iso-Footcandle Lines of Horizontal Illumination

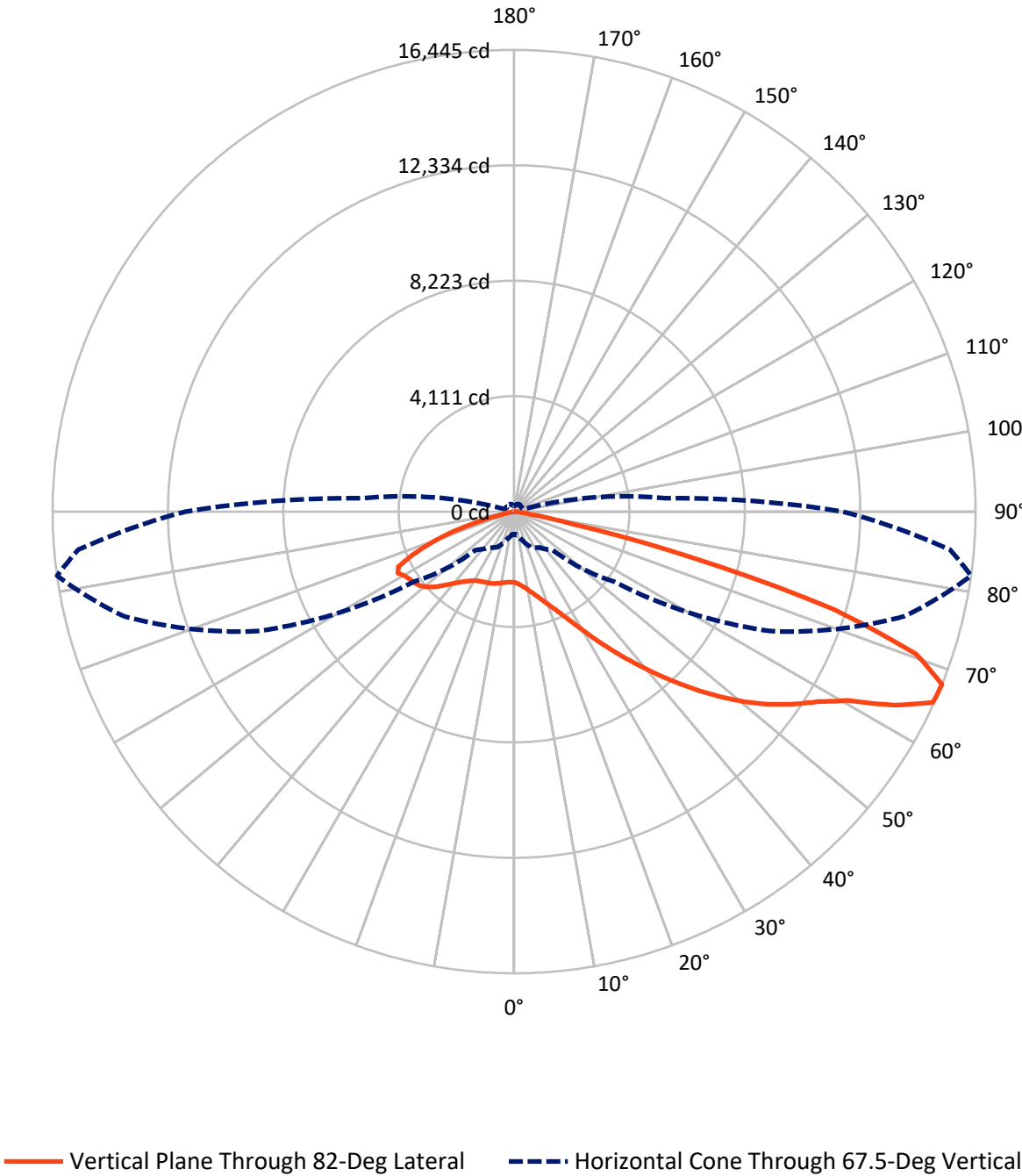
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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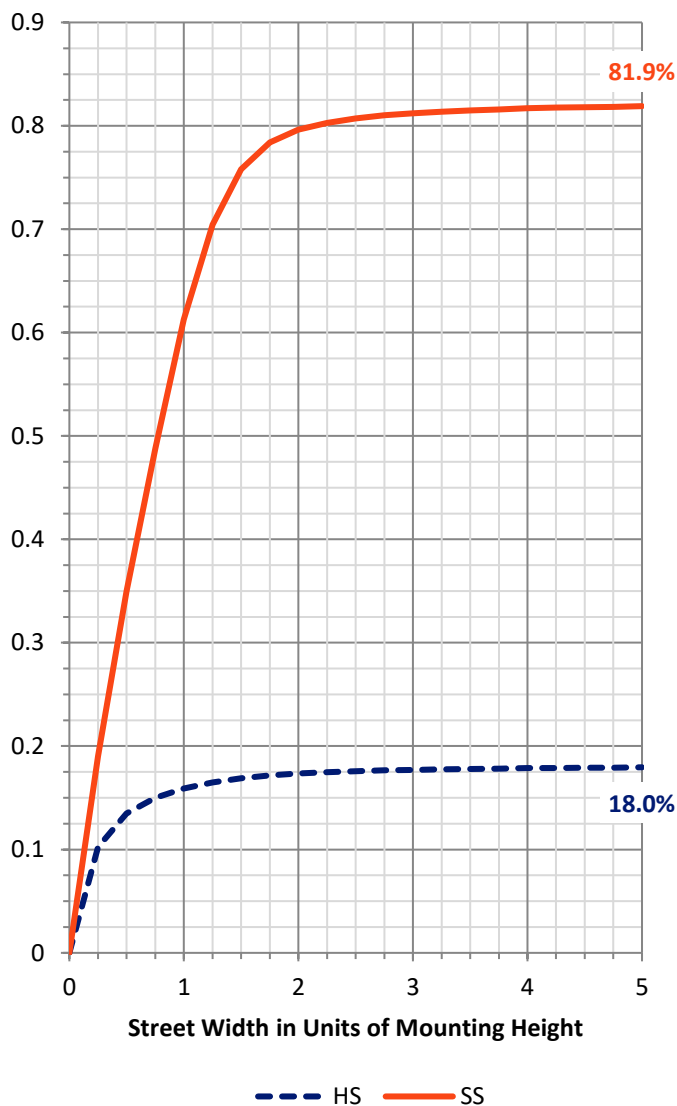
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2760.5	0.0	2760.5
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	12479.2	0.0	12479.2
	% Fixture	81.9	0.0	81.9
Total	Lumens	15239.7	0.0	15239.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.9	1.5
10°-20°	584.5	3.8
20°-30°	936.2	6.1
30°-40°	1655.5	10.9
40°-50°	2900.6	19.0
50°-60°	3868.5	25.4
60°-70°	3601.4	23.6
70°-80°	1382.2	9.1
80°-90°	85.9	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°	15239.7	100.0
0°-180°	15239.7	100.0

Coefficient of Utilization



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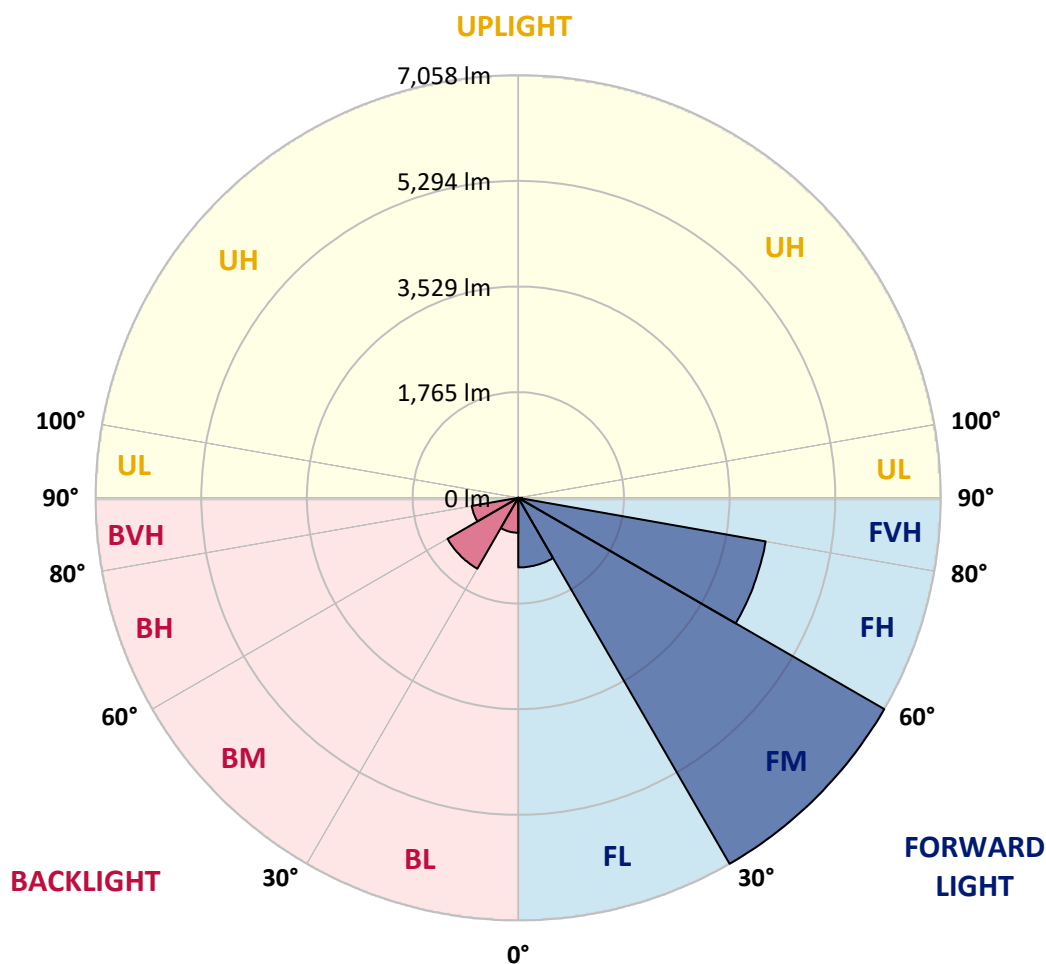
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1162.6	7.6			
FM	(30°-60°)	7058.4	46.3			
FH	(60°-80°)	4195.7	27.5			G2/5000
FVH	(80°-90°)	62.4	0.4			G1/100
BL	(0°-30°)	583.0	3.8	B2/1000		
BM	(30°-60°)	1366.2	9.0	B2/2500		
BH	(60°-80°)	787.9	5.2	B2/1000		G2/1000
BVH	(80°-90°)	23.4	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°	2524.7	2524.7	2524.7	2524.7	2524.7	2524.7	2524.7	2524.7	2524.7	2524.7	2524.7
2.5°	2668.5	2683.8	2675.0	2670.6	2663.0	2652.0	2643.2	2615.8	2587.2	2568.5	2562.0
5°	2722.2	2737.6	2736.4	2740.8	2746.4	2749.7	2747.4	2716.8	2676.1	2644.3	2625.6
7.5°	2676.1	2693.7	2707.9	2729.9	2768.3	2808.9	2828.6	2822.0	2780.3	2736.4	2713.4
10°	2545.6	2564.2	2598.2	2649.8	2731.0	2818.7	2892.2	2926.3	2899.9	2851.7	2819.9
12.5°	2306.4	2325.0	2391.9	2503.9	2639.9	2792.4	2932.8	3024.0	3030.5	2982.2	2944.9
15°	2037.5	2056.1	2127.5	2267.9	2475.4	2720.0	2954.8	3127.1	3185.2	3143.6	3098.6
17.5°	1870.7	1887.2	1940.9	2054.0	2270.2	2575.2	2947.2	3236.8	3369.6	3336.7	3282.9
20°	1820.3	1834.5	1859.8	1938.8	2118.8	2424.8	2896.6	3340.0	3568.1	3549.5	3489.2
22.5°	1874.0	1887.2	1894.9	1930.0	2043.0	2326.1	2833.0	3445.2	3798.5	3800.8	3727.2
25°	1998.0	2011.2	2002.4	2024.4	2073.8	2295.4	2808.9	3569.3	4088.2	4112.4	4029.0
27.5°	2202.1	2203.2	2182.3	2181.3	2189.0	2341.5	2834.1	3702.0	4453.6	4498.6	4395.5
30°	2611.4	2594.9	2514.8	2428.1	2388.7	2479.7	2904.3	3858.9	4884.8	4964.9	4835.4
32.5°	3242.3	3218.2	3071.1	2863.7	2655.3	2702.4	3030.5	4037.8	5354.4	5499.2	5341.3
35°	3927.0	3920.3	3766.8	3458.5	3094.2	3019.5	3235.7	4272.6	5866.8	6097.2	5909.6
37.5°	4563.3	4560.0	4472.3	4109.1	3665.8	3461.7	3564.8	4579.8	6415.5	6749.0	6527.4
40°	5144.9	5154.7	5067.0	4742.2	4295.6	4029.0	4012.6	4959.5	7025.5	7458.9	7195.6
42.5°	5647.3	5658.4	5569.4	5329.2	4917.7	4656.6	4562.3	5424.6	7621.3	8221.4	7909.8
45°	5988.7	6056.6	6043.5	5851.5	5556.3	5285.3	5222.8	6008.3	8300.4	9030.1	8664.7
47.5°	6085.2	6147.7	6246.5	6272.8	6092.9	5826.2	5900.8	6711.7	8987.3	9839.9	9424.1
50°	5847.1	5905.2	6110.4	6383.6	6508.7	6426.4	6560.3	7465.5	9690.7	10647.4	10169.0
52.5°	5377.5	5436.7	5695.6	6128.0	6638.2	6897.1	7221.9	8208.3	10372.0	11412.1	10874.5
55°	4698.3	4760.8	5093.3	5582.7	6391.3	7091.4	7773.8	8950.0	10996.3	12100.1	11511.0
57.5°	3774.5	3820.5	4166.1	4850.8	5770.2	6898.2	8180.8	9759.7	11584.4	12776.0	12141.8
60°	2460.0	2500.6	2902.2	3665.8	4741.1	6253.0	8262.1	10662.8	12365.7	13654.9	12992.2
62.5°	1636.0	1663.4	1901.5	2462.2	3338.8	5014.3	7786.9	11383.6	13511.1	15184.5	14450.3
65°	1122.5	1149.8	1388.0	1778.6	2157.1	3316.9	6420.9	11288.2	14549.2	16399.1	15531.1
67.5°	800.9	824.0	1025.9	1394.6	1561.4	1926.7	4352.7	10068.1	14399.9	16445.1	15589.3
70°	573.8	587.0	753.8	1086.3	1241.0	1157.5	2420.4	7700.3	12608.1	15185.5	14402.1
72.5°	401.6	406.0	523.4	827.3	999.6	844.9	1152.1	5133.9	9536.0	11919.1	11165.3
75°	272.1	277.6	352.2	606.8	802.1	645.1	610.1	2752.9	5598.0	6597.6	5914.0
77.5°	166.8	169.0	227.1	414.7	600.1	491.6	392.8	1166.3	2165.9	2126.4	1812.6
80°	94.4	94.4	144.8	257.9	409.3	317.1	275.4	495.9	685.7	602.4	531.1
82.5°	52.7	53.8	105.4	160.2	271.0	187.6	151.4	229.3	296.2	262.2	228.3
85°	21.9	24.2	64.8	75.7	129.5	93.3	61.4	96.6	109.7	97.7	71.3
87.5°	2.2	3.3	19.8	14.2	15.4	18.7	8.8	18.7	15.4	15.4	11.0
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°	2524.7	2524.7	2524.7	2524.7	2524.7	2524.7	2524.7	2524.7	2524.7	2524.7	2524.7
2.5°	2541.2	2524.7	2483.0	2434.7	2371.1	2340.4	2298.7	2270.2	2246.0	2248.2	2226.3
5°	2590.6	2548.9	2455.6	2339.3	2194.4	2091.3	1981.5	1905.9	1844.4	1831.3	1801.6
7.5°	2658.5	2592.7	2429.2	2219.6	1975.0	1789.5	1623.9	1517.4	1441.8	1417.6	1393.5
10°	2746.4	2650.9	2395.2	2069.4	1717.2	1481.2	1303.5	1220.1	1168.5	1151.0	1137.9
12.5°	2848.4	2717.8	2350.2	1886.1	1451.6	1224.5	1111.5	1069.8	1053.3	1047.9	1044.6
15°	2976.8	2801.2	2282.3	1668.9	1226.7	1067.6	1019.4	1013.8	1016.0	1013.8	1012.7
17.5°	3129.2	2892.2	2171.4	1445.0	1075.2	987.5	970.0	974.4	979.8	978.7	976.5
20°	3296.1	2982.2	2029.8	1246.4	972.1	930.4	920.6	925.0	929.4	927.1	926.1
22.5°	3485.8	3078.8	1873.0	1091.7	903.0	877.8	866.8	867.9	867.9	863.6	861.3
25°	3713.0	3185.2	1708.4	982.1	850.3	830.6	817.4	813.0	806.5	793.2	791.1
27.5°	3984.0	3298.2	1550.4	905.2	808.6	790.0	774.6	763.6	747.2	725.3	723.0
30°	4289.0	3435.4	1416.6	856.9	775.7	757.1	739.5	723.0	698.9	671.5	669.3
32.5°	4647.9	3582.4	1318.9	825.1	746.1	726.3	705.5	685.7	659.4	632.0	633.1
35°	5075.7	3760.2	1261.8	803.2	723.0	696.7	673.7	651.8	632.0	607.8	605.7
37.5°	5539.8	3948.9	1244.2	792.2	707.7	667.1	640.7	625.5	623.2	609.0	607.8
40°	6047.9	4172.8	1257.4	785.6	691.3	638.6	610.1	606.8	612.2	587.0	588.1
42.5°	6585.5	4438.2	1279.4	778.0	668.2	610.1	582.6	582.6	578.2	543.1	543.1
45°	7167.0	4744.4	1301.3	759.3	640.7	581.5	560.7	553.0	534.3	500.3	499.3
47.5°	7753.0	5056.0	1317.7	725.3	607.8	557.4	538.7	521.2	493.7	463.0	462.0
50°	8309.3	5335.7	1300.2	674.8	570.5	534.3	514.6	490.5	460.8	440.0	436.6
52.5°	8806.3	5578.3	1225.6	615.5	531.1	510.2	492.6	467.4	443.3	421.4	419.1
55°	9238.6	5774.6	1093.9	559.5	495.9	489.3	471.8	440.0	407.0	388.4	386.2
57.5°	9653.3	5923.9	929.4	513.5	464.1	466.3	440.0	411.4	380.7	361.0	358.7
60°	10205.2	6123.6	762.6	470.7	430.1	436.6	408.2	387.3	348.9	323.7	320.4
62.5°	11087.4	6434.1	605.7	418.0	390.6	392.8	380.7	355.5	309.4	279.8	277.6
65°	11787.4	6319.9	477.2	361.0	345.6	348.9	348.9	321.4	272.1	238.1	234.8
67.5°	11708.5	5411.5	380.7	305.0	302.8	305.0	312.7	289.7	241.4	213.9	209.6
70°	10785.7	4304.4	305.0	253.5	263.3	257.9	279.8	264.4	217.3	189.8	186.5
72.5°	8800.8	3100.7	232.6	209.6	201.9	210.6	252.4	238.1	181.0	150.4	147.0
75°	5142.6	1654.7	173.3	165.6	146.0	175.6	223.9	203.0	138.3	110.8	107.5
77.5°	1674.3	577.2	127.3	121.8	108.6	141.6	191.0	171.2	113.1	87.7	84.5
80°	448.7	174.5	86.7	80.1	70.2	105.4	151.4	136.0	81.2	57.1	56.0
82.5°	180.0	73.5	50.4	45.0	38.4	72.5	119.6	109.7	60.4	36.2	36.2
85°	58.1	24.2	18.7	14.2	17.5	45.0	71.3	74.6	42.7	18.7	14.2
87.5°	7.7	3.3	3.3	4.4	3.3	7.7	21.9	20.8	12.1	2.2	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)