

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: P966191

Luminaire Tested: **NAV-SB4B-740-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966191
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4B-740-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18851.8 lumens
Efficiency: N/A
Efficacy: 128.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

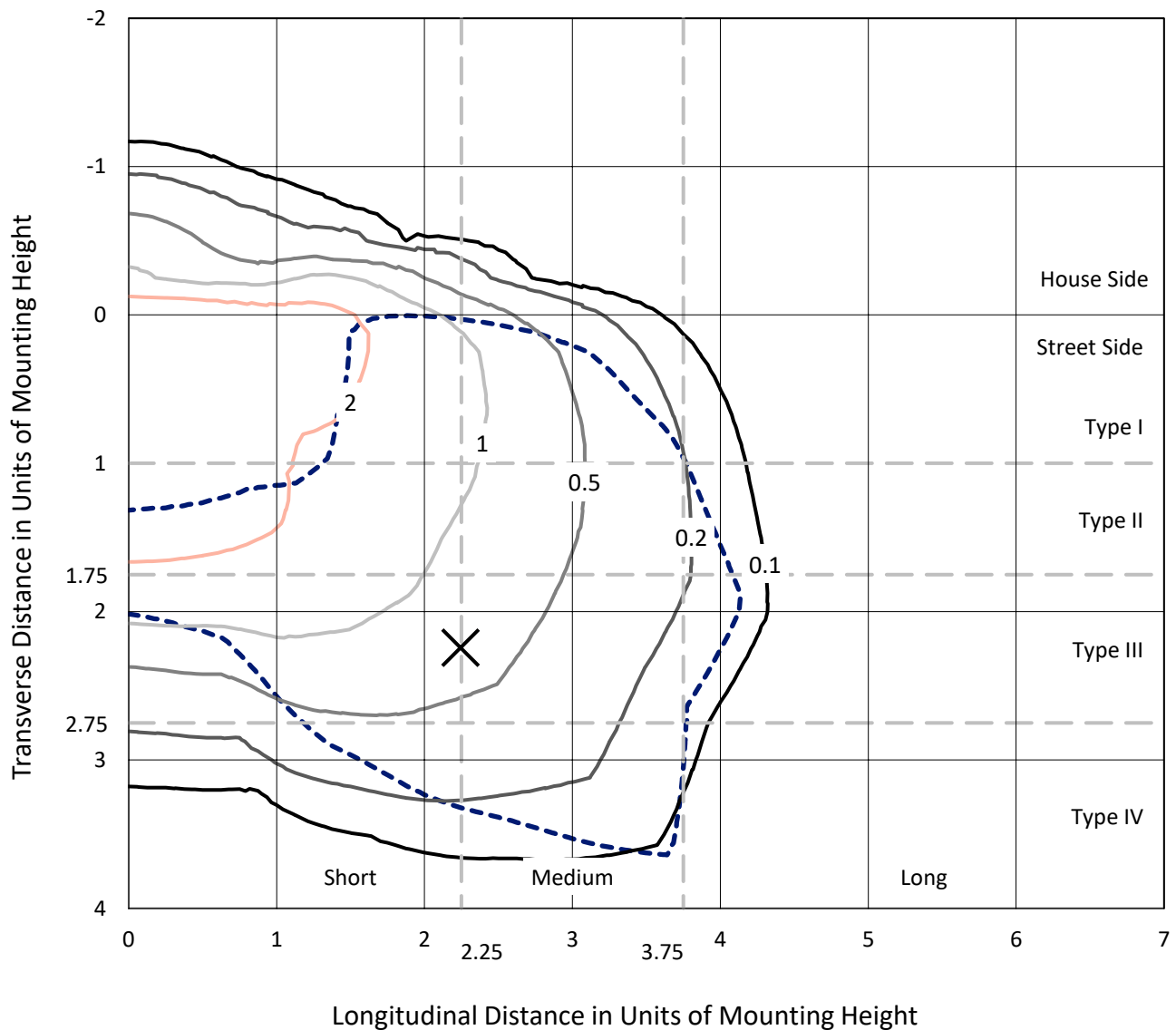
Input Watts (W): 147
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

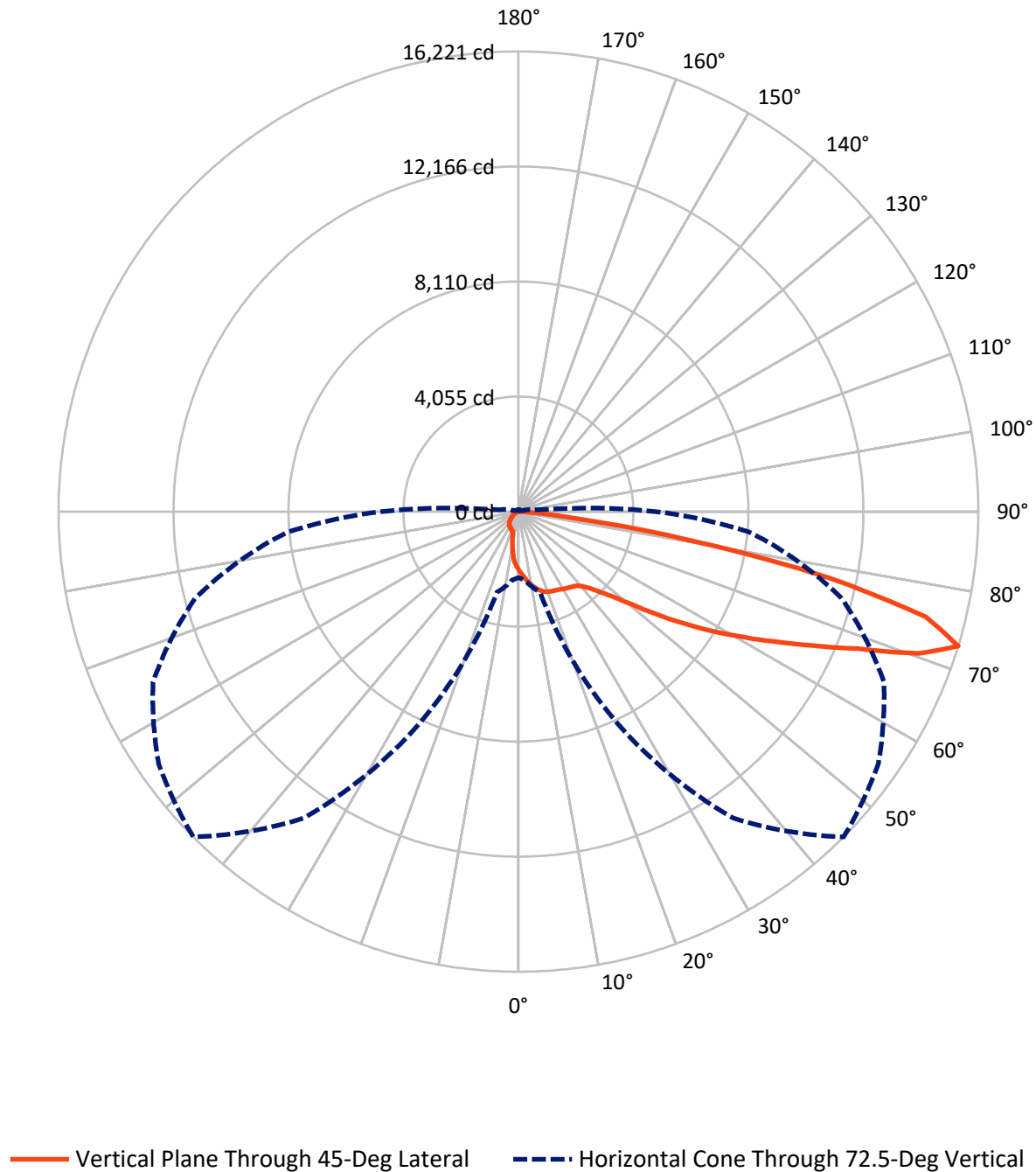
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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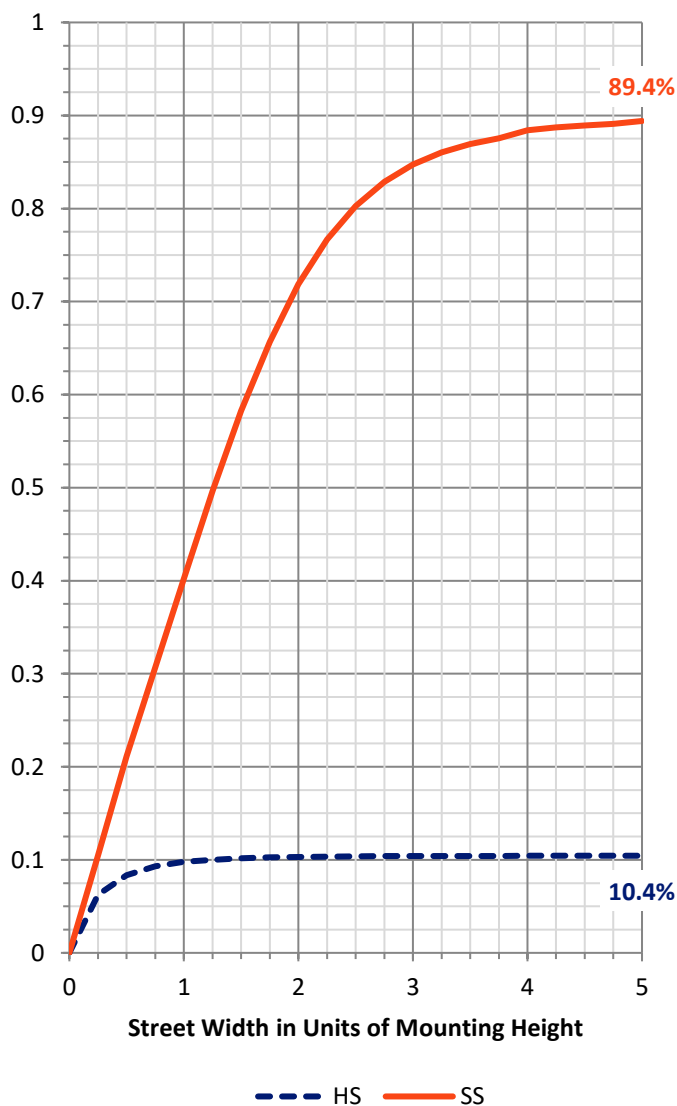
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1980.8	0.0	1980.8
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	16871.0	0.0	16871.0
	% Fixture	89.5	0.0	89.5
Total	Lumens	18851.8	0.0	18851.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.6	1.0
10°-20°	568.7	3.0
20°-30°	933.9	5.0
30°-40°	1324.5	7.0
40°-50°	2189.2	11.6
50°-60°	3932.7	20.9
60°-70°	5460.8	29.0
70°-80°	3961.1	21.0
80°-90°	286.4	1.5
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°	18851.8	100.0
0°-180°	18851.8	100.0

Coefficient of Utilization



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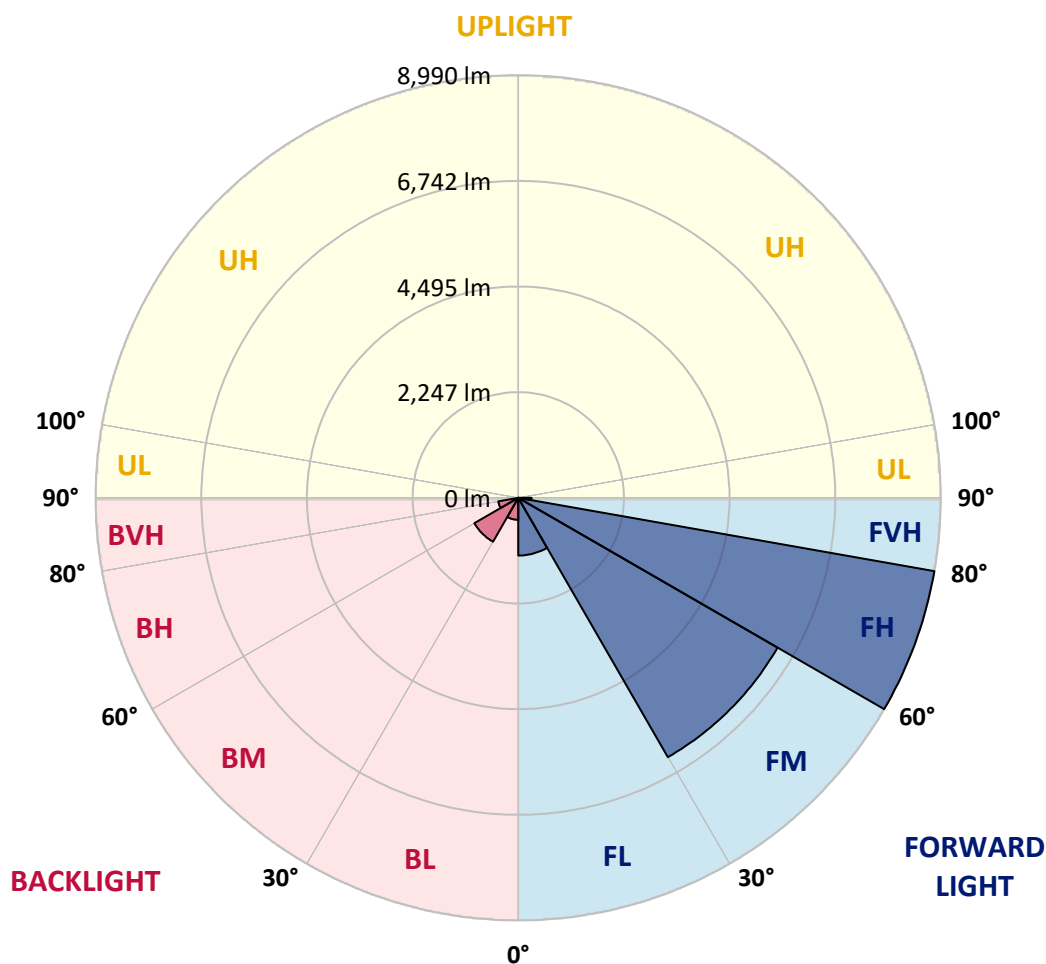
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1228.0	6.5			
FM	(30°-60°)	6369.1	33.8			
FH	(60°-80°)	8989.9	47.7			G4/12000
FVH	(80°-90°)	284.0	1.5			G3/500
BL	(0°-30°)	469.2	2.5	B1/500		
BM	(30°-60°)	1077.3	5.7	B2/2500		
BH	(60°-80°)	431.9	2.3	B1/500		G1/500
BVH	(80°-90°)	2.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2065.3	2065.3	2065.3	2065.3	2065.3	2065.3	2065.3	2065.3	2065.3	2065.3	2065.3
2.5°	2255.7	2259.5	2256.9	2241.6	2215.8	2201.7	2193.9	2168.2	2151.5	2121.9	2091.0
5°	2462.9	2478.3	2469.3	2438.4	2389.5	2354.7	2344.5	2291.7	2244.1	2188.8	2124.4
7.5°	2682.9	2690.6	2673.9	2634.0	2568.3	2509.2	2500.2	2426.8	2350.9	2266.0	2178.5
10°	2873.4	2882.3	2856.6	2798.7	2724.0	2650.8	2637.8	2556.8	2466.8	2362.5	2250.6
12.5°	3032.9	3041.9	3008.5	2939.0	2856.6	2780.7	2767.8	2682.9	2583.8	2468.0	2329.0
15°	3153.8	3170.6	3125.5	3050.9	2962.1	2886.2	2879.7	2796.1	2699.6	2570.9	2423.0
17.5°	3224.6	3241.4	3198.9	3108.8	3032.9	2968.6	2960.8	2891.3	2801.3	2677.7	2514.3
20°	3236.2	3251.6	3206.6	3128.1	3065.1	3013.6	3009.7	2959.6	2893.9	2775.6	2613.4
22.5°	3201.5	3220.8	3179.5	3116.5	3072.7	3045.8	3040.7	3012.3	2975.0	2874.6	2706.1
25°	3165.4	3180.9	3150.0	3094.7	3071.5	3069.0	3072.7	3067.6	3059.9	2975.0	2814.1
27.5°	3162.8	3179.5	3144.8	3092.1	3079.2	3106.3	3110.2	3134.6	3141.0	3066.4	2918.4
30°	3184.8	3196.4	3162.8	3107.5	3101.1	3162.8	3164.2	3207.9	3218.2	3143.6	3021.3
32.5°	3232.3	3245.3	3211.7	3130.7	3121.6	3207.9	3211.7	3269.6	3286.4	3225.9	3129.4
35°	3344.3	3359.7	3321.1	3195.0	3162.8	3250.4	3262.0	3330.1	3363.6	3313.4	3241.4
37.5°	3623.5	3578.5	3525.7	3325.0	3256.8	3317.3	3336.6	3416.3	3475.6	3417.7	3375.2
40°	4317.1	4175.5	4010.8	3546.3	3421.6	3460.1	3475.6	3555.3	3636.4	3579.8	3559.2
42.5°	5358.1	5190.8	4925.7	4055.9	3669.8	3689.2	3700.8	3770.3	3884.7	3839.6	3844.9
45°	6285.8	6225.3	5955.1	4925.7	4134.3	4039.1	4053.3	4089.3	4257.8	4241.1	4274.7
47.5°	6998.7	6964.0	6755.5	5924.3	4919.3	4467.7	4507.5	4524.2	4767.5	4826.6	4916.7
50°	7546.9	7534.0	7347.4	6812.2	5944.8	5099.5	5113.6	5077.5	5441.7	5588.4	5759.6
52.5°	8064.2	8107.9	7970.2	7637.0	7039.9	5926.9	5924.3	5754.5	6245.9	6467.2	6759.4
55°	8531.3	8546.7	8560.8	8478.5	8141.4	6868.7	6844.3	6566.4	7178.9	7407.9	7724.4
57.5°	8970.0	8976.4	9102.5	9271.1	9287.8	7880.1	7835.1	7501.9	8197.9	8361.4	8555.7
60°	9264.7	9294.3	9560.7	10029.0	10233.6	8923.8	8899.3	8559.6	9235.1	9311.0	9275.0
62.5°	8840.1	9020.2	9691.9	10620.9	11126.7	10080.5	10068.9	9749.8	10326.3	10264.6	9955.7
65°	7155.7	7460.7	8641.9	11021.1	12003.0	11372.4	11389.2	11049.4	11447.0	11246.3	10509.0
67.5°	5005.5	5327.2	6724.6	11053.3	12982.1	12889.5	12986.0	12453.3	12637.3	12186.9	10640.2
70°	3461.4	3627.4	4537.2	10361.0	13745.2	14979.2	14976.7	14177.6	13821.1	12615.4	9971.1
72.5°	2327.8	2414.0	2946.7	8219.9	13184.2	16220.9	16146.3	15495.2	14220.0	11798.4	8146.5
75°	981.8	1044.9	1364.0	4619.5	10430.5	14840.3	14638.2	13693.7	12634.8	9290.4	5082.7
77.5°	311.4	338.5	537.8	1653.5	5745.4	11155.0	10941.4	8551.8	8468.1	4660.7	1858.1
80°	148.0	172.4	302.4	664.0	2260.8	6067.1	6037.5	3879.6	3642.8	1258.5	373.2
82.5°	64.4	76.0	167.3	355.2	1011.4	2164.3	2208.1	1320.2	1092.4	477.3	114.5
85°	20.6	27.1	77.2	163.4	427.2	537.8	531.5	314.0	440.0	259.9	39.9
87.5°	0.0	0.0	25.7	37.3	43.8	30.9	34.7	27.1	122.3	72.1	14.1
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°	2065.3	2065.3	2065.3	2065.3	2065.3	2065.3	2065.3	2065.3	2065.3	2065.3	2065.3
2.5°	2075.5	2054.9	2018.9	1985.4	1955.9	1926.3	1908.2	1882.5	1880.0	1880.0	1886.4
5°	2089.7	2056.3	1991.9	1923.7	1845.2	1770.6	1696.0	1623.9	1600.7	1584.0	1591.7
7.5°	2130.9	2078.1	1976.5	1846.5	1697.2	1533.8	1419.3	1295.8	1248.1	1222.4	1226.3
10°	2190.1	2118.1	1963.6	1735.8	1493.9	1271.3	1107.9	974.1	922.6	900.8	900.8
12.5°	2255.7	2167.0	1940.4	1598.2	1271.3	1005.0	845.4	783.6	775.9	775.9	775.9
15°	2334.2	2226.1	1900.6	1436.0	1038.4	795.2	738.6	741.2	748.9	754.1	754.1
17.5°	2415.2	2289.1	1837.5	1254.6	832.5	715.4	716.7	720.6	727.0	732.2	732.2
20°	2502.7	2352.2	1753.9	1061.6	714.1	692.3	696.2	700.0	705.1	707.8	709.0
22.5°	2596.7	2411.4	1654.8	872.4	674.2	673.0	674.2	678.1	684.6	684.6	687.2
25°	2697.1	2477.0	1541.5	734.7	653.6	653.6	656.2	658.9	664.0	664.0	665.2
27.5°	2800.0	2537.5	1421.9	662.7	635.7	634.4	634.4	638.3	640.8	642.1	643.4
30°	2913.3	2608.3	1302.2	647.3	621.5	615.1	611.2	613.8	616.3	617.7	620.2
32.5°	3029.1	2676.5	1195.4	653.6	607.3	595.7	582.9	580.4	580.4	585.5	589.4
35°	3157.7	2751.1	1113.0	675.6	599.6	567.4	546.8	535.3	536.6	544.3	548.2
37.5°	3312.1	2841.2	1052.6	694.8	594.5	535.3	501.8	487.7	478.7	487.7	485.1
40°	3514.1	2973.7	1008.8	710.3	588.0	497.9	452.9	429.8	413.1	418.2	415.6
42.5°	3811.4	3182.2	992.1	711.6	573.9	454.2	402.7	371.9	347.5	348.7	343.6
45°	4228.3	3511.5	1078.3	694.8	543.0	406.6	350.0	308.8	293.4	289.6	284.3
47.5°	4799.7	3991.6	1277.8	660.1	497.9	360.3	298.5	263.8	252.3	245.8	241.9
50°	5565.2	4607.9	1499.1	621.5	452.9	316.5	256.0	234.2	226.4	220.1	218.7
52.5°	6453.1	5233.2	1680.5	582.9	408.0	278.0	229.1	216.2	209.7	204.6	203.3
55°	7267.7	5664.4	1670.2	541.7	364.2	247.0	209.7	202.0	194.3	189.1	186.5
57.5°	7774.6	5724.8	1376.9	496.7	314.0	222.6	191.8	186.5	177.5	171.2	169.8
60°	8007.5	5379.9	965.0	437.5	263.8	199.5	172.4	169.8	158.3	149.2	146.7
62.5°	8049.9	4739.2	643.4	364.2	220.1	177.5	153.1	149.2	133.9	118.4	110.7
65°	7877.5	3822.9	445.3	284.3	187.9	154.4	131.2	123.5	106.8	91.3	86.2
67.5°	7331.9	2684.2	310.1	204.6	159.6	122.3	104.2	101.7	88.8	76.0	72.1
70°	6332.1	1529.9	207.2	153.1	126.1	83.6	82.3	85.0	72.1	61.8	56.6
72.5°	4854.9	700.0	128.6	111.9	86.2	56.6	65.6	66.9	55.4	46.3	41.2
75°	2857.9	299.8	81.1	72.1	43.8	37.3	47.6	48.9	37.3	29.6	25.7
77.5°	972.8	113.3	51.5	42.4	21.8	20.6	30.9	30.9	20.6	11.6	9.0
80°	221.3	42.4	25.7	16.7	10.2	9.0	10.2	9.0	5.1	1.3	0.0
82.5°	63.0	16.7	10.2	6.5	3.9	3.9	1.3	0.0	0.0	0.0	0.0
85°	18.0	7.7	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.7	1.3	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)