

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: P962089

Luminaire Tested: **NAV-SB2B-830-U-T2R**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P962089
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-3)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-830-U-T2R
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3000K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10563.6 lumens
Efficiency: N/A
Efficacy: 142.9 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): 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

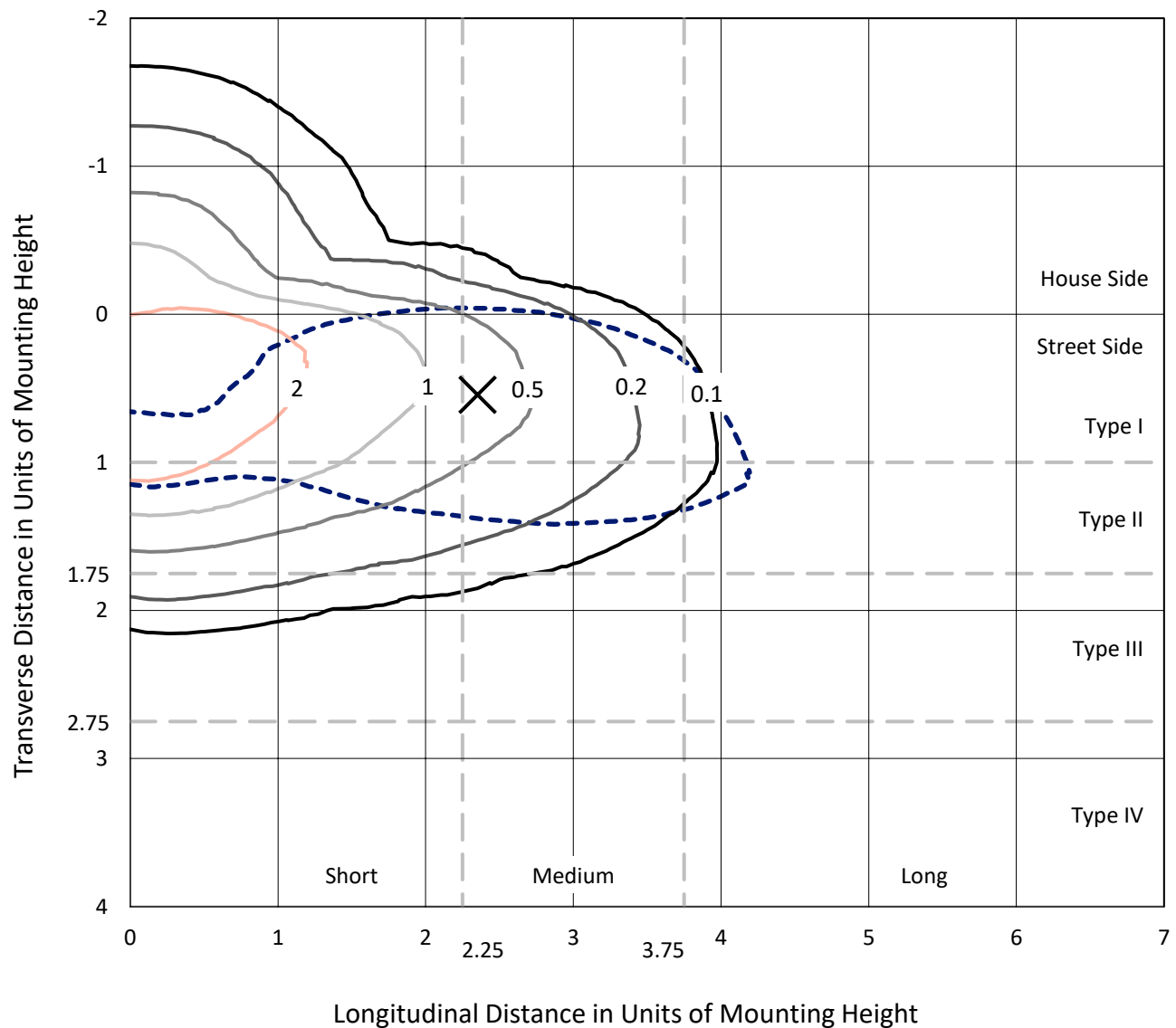


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Iso-Footcandle Lines of Horizontal Illumination

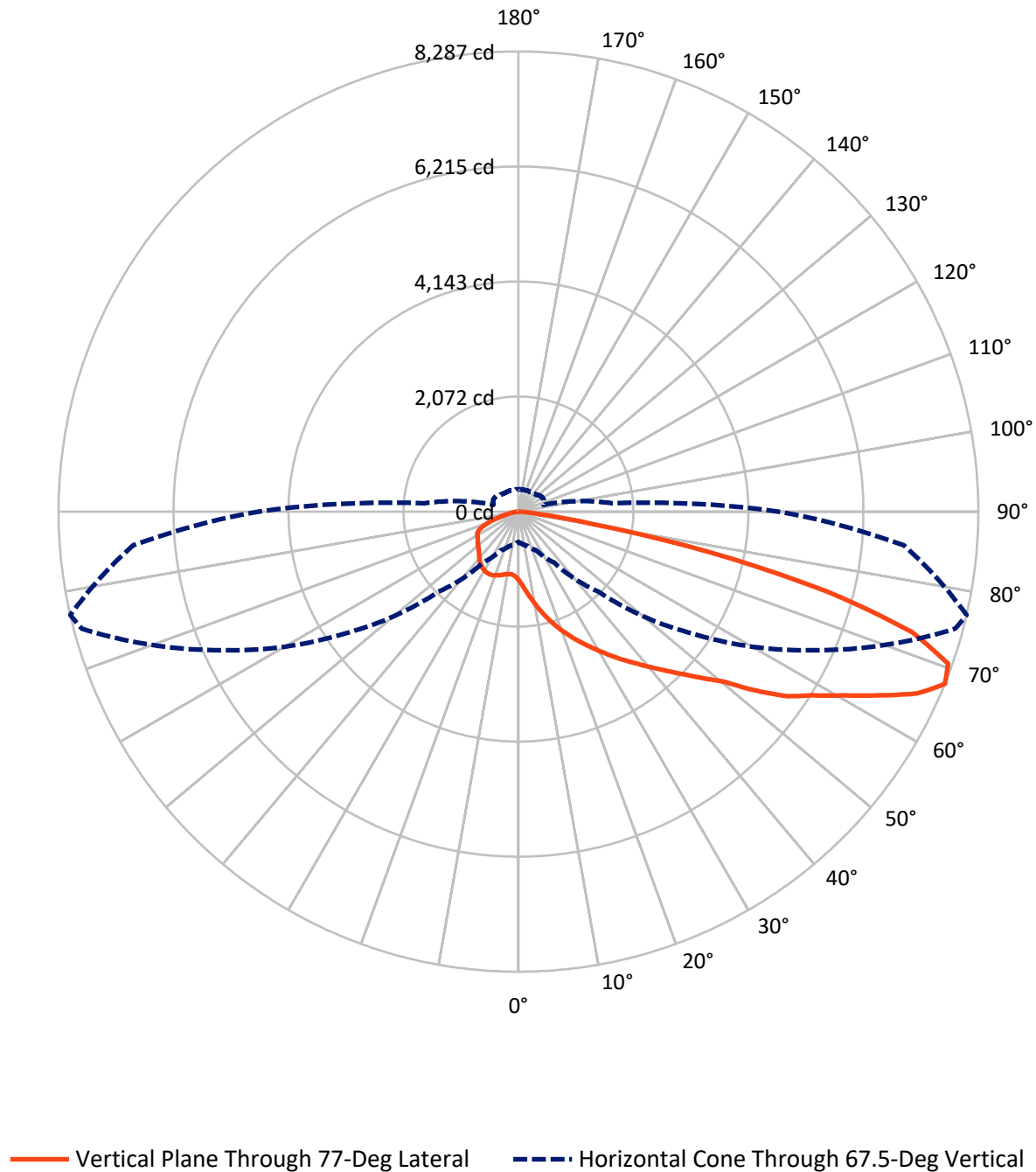
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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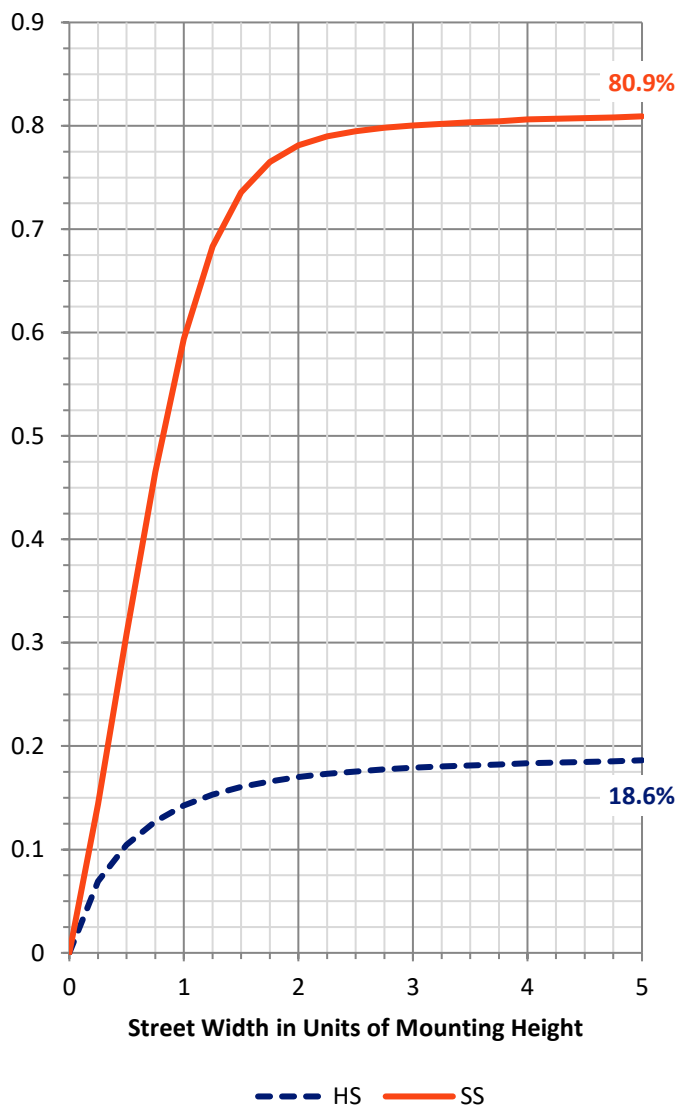
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1998.2	0.0	1998.2
	% Fixture	18.9	0.0	18.9
Street Side	Lumens	8565.4	0.0	8565.4
	% Fixture	81.1	0.0	81.1
Total	Lumens	10563.6	0.0	10563.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.9	1.3
10°-20°	477.3	4.5
20°-30°	901.2	8.5
30°-40°	1451.7	13.7
40°-50°	1985.7	18.8
50°-60°	2239.9	21.2
60°-70°	2090.7	19.8
70°-80°	1146.0	10.8
80°-90°	138.2	1.3
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°	10563.6	100.0
0°-180°	10563.6	100.0

Coefficient of Utilization



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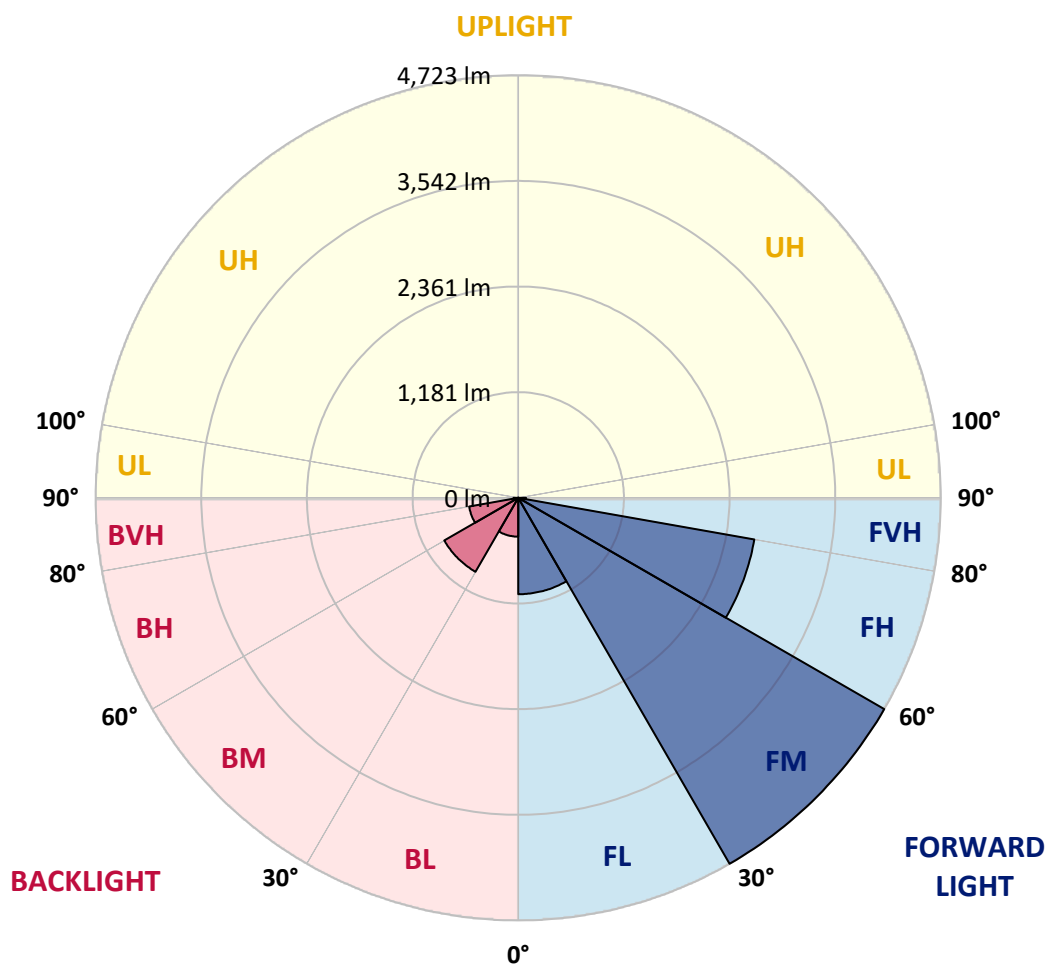
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1076.8	10.2			
FM	(30°-60°)	4722.9	44.7			
FH	(60°-80°)	2679.3	25.4			G2/5000
FVH	(80°-90°)	86.5	0.8			G1/100
BL	(0°-30°)	434.5	4.1	B1/500		
BM	(30°-60°)	954.5	9.0	B1/1000		
BH	(60°-80°)	557.5	5.3	B2/1000		G2/1000
BVH	(80°-90°)	51.8	0.5			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°	77°	85°
0°	1239.4	1239.4	1239.4	1239.4	1239.4	1239.4	1239.4	1239.4	1239.4	1239.4	1239.4
2.5°	1551.8	1562.8	1549.2	1549.2	1503.4	1479.4	1433.6	1398.7	1336.0	1325.0	1283.6
5°	1834.3	1848.0	1828.9	1820.7	1766.7	1717.1	1640.2	1564.5	1452.6	1441.3	1343.6
7.5°	2053.0	2070.5	2053.6	2044.9	1996.8	1941.2	1851.3	1745.5	1587.9	1565.5	1424.3
10°	2231.3	2234.1	2228.6	2231.8	2194.2	2148.4	2056.3	1933.0	1736.2	1705.7	1521.9
12.5°	2332.2	2344.8	2355.7	2375.2	2368.8	2340.4	2257.5	2110.3	1893.3	1854.0	1628.2
15°	2379.6	2401.5	2426.0	2471.3	2507.8	2514.8	2451.6	2300.6	2053.0	2005.6	1735.6
17.5°	2396.6	2417.3	2456.0	2521.4	2599.9	2652.8	2624.5	2485.4	2211.1	2156.6	1848.5
20°	2482.1	2488.2	2511.6	2573.8	2658.8	2746.6	2767.9	2663.2	2367.6	2306.0	1965.2
22.5°	2665.4	2653.4	2659.9	2688.3	2749.4	2834.4	2882.9	2820.3	2528.5	2457.6	2083.0
25°	2968.0	2933.1	2898.2	2865.5	2896.5	2944.5	2999.7	2977.3	2697.0	2607.0	2201.9
27.5°	3350.2	3307.8	3230.8	3123.4	3085.8	3102.7	3127.3	3122.9	2853.0	2761.9	2324.6
30°	3726.5	3676.9	3585.2	3429.9	3330.6	3285.9	3267.4	3254.9	3022.5	2925.5	2448.3
32.5°	4026.9	3987.7	3897.8	3723.8	3579.8	3503.4	3441.8	3397.2	3199.7	3102.7	2579.2
35°	4289.8	4253.2	4150.2	3960.4	3804.0	3722.7	3642.0	3546.6	3384.0	3285.9	2719.9
37.5°	4529.7	4493.2	4351.9	4154.5	3997.0	3940.8	3868.9	3706.9	3568.9	3476.2	2868.8
40°	4681.3	4673.2	4541.2	4317.6	4154.0	4126.2	4102.3	3892.8	3773.9	3687.8	3032.4
42.5°	4720.0	4738.1	4633.3	4449.5	4293.6	4271.3	4327.4	4103.3	4004.1	3921.8	3217.8
45°	4626.7	4678.6	4609.8	4485.0	4392.8	4380.8	4527.0	4333.4	4258.7	4183.4	3441.3
47.5°	4390.7	4478.4	4450.1	4432.6	4419.6	4471.4	4702.6	4577.8	4547.2	4481.7	3696.6
50°	3914.1	4080.4	4130.0	4240.2	4366.7	4541.7	4862.4	4844.4	4884.1	4818.2	4007.3
52.5°	3090.2	3319.2	3607.1	3883.0	4204.1	4518.3	5038.0	5227.2	5395.1	5359.1	4501.4
55°	2550.9	2653.9	2875.3	3381.4	3889.1	4419.6	5117.0	5536.3	5902.3	5870.1	4876.0
57.5°	2136.4	2228.6	2364.9	2787.5	3412.4	4195.4	5166.1	5725.0	6249.5	6246.2	5245.6
60°	1692.1	1789.6	1929.3	2228.6	2855.6	3808.3	5155.1	5939.9	6692.8	6720.1	5696.6
62.5°	1190.3	1297.8	1452.6	1731.8	2287.0	3306.6	4932.7	6095.3	7214.8	7288.9	6239.2
65°	782.5	853.4	970.1	1211.1	1704.1	2661.5	4508.0	6115.5	7773.1	7898.5	6748.5
67.5°	548.6	575.8	644.5	775.4	1123.3	2041.0	3831.2	5906.6	8145.6	8286.8	6969.4
70°	428.0	441.7	476.6	528.9	705.6	1372.5	2935.8	5363.5	8065.9	8213.1	6738.7
72.5°	369.7	382.8	395.9	402.4	473.3	847.4	1988.7	4484.5	7316.1	7416.0	5859.1
75°	335.4	338.7	349.5	347.4	361.0	549.6	1147.8	3267.4	5772.4	5738.1	4325.2
77.5°	281.9	286.3	304.3	301.6	320.6	375.7	596.0	2108.6	3742.3	3509.0	2407.4
80°	238.8	241.0	260.7	257.4	278.6	272.1	304.3	1074.8	1587.3	1344.7	694.1
82.5°	82.9	102.5	199.1	205.0	212.7	164.7	175.6	438.4	484.7	371.4	145.5
85°	40.4	43.0	101.5	143.9	143.4	82.9	85.6	156.5	152.7	119.9	48.5
87.5°	6.6	8.2	12.0	56.2	44.7	21.8	29.4	30.5	31.7	27.3	10.9
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°	1239.4	1239.4	1239.4	1239.4	1239.4	1239.4	1239.4	1239.4	1239.4	1239.4	1239.4
2.5°	1253.1	1225.8	1168.6	1115.7	1074.2	1034.4	1012.1	993.0	982.1	979.9	979.9
5°	1286.9	1230.7	1126.6	1038.7	981.5	939.0	916.7	902.4	895.3	891.0	890.4
7.5°	1335.4	1253.1	1104.7	1005.0	944.9	914.4	903.0	900.8	900.3	900.8	902.4
10°	1402.5	1289.7	1102.6	996.8	946.6	929.7	929.2	929.7	931.9	932.4	933.0
12.5°	1475.0	1327.3	1111.3	1003.9	967.4	958.1	956.4	955.9	957.6	958.6	959.2
15°	1554.1	1376.9	1126.1	1019.2	990.3	980.4	978.8	975.5	975.0	974.5	973.9
17.5°	1635.3	1426.0	1142.4	1035.5	1005.0	991.4	985.3	977.7	971.7	970.1	971.7
20°	1717.7	1474.5	1153.8	1043.7	1006.0	987.0	975.0	961.9	951.5	945.6	947.7
22.5°	1805.4	1525.2	1160.9	1041.5	996.2	970.1	948.2	933.0	917.2	906.8	907.3
25°	1891.0	1569.4	1160.4	1030.0	977.1	943.9	916.0	896.5	874.6	863.8	863.8
27.5°	1973.4	1609.1	1146.8	1009.8	949.9	912.9	879.6	856.1	834.9	824.5	823.9
30°	2058.5	1642.5	1125.4	980.4	917.7	876.8	840.3	820.1	801.0	791.2	790.7
32.5°	2143.0	1672.9	1095.5	943.9	880.7	841.4	805.3	786.9	775.4	775.4	775.9
35°	2232.4	1694.2	1055.6	901.4	841.4	803.8	775.4	764.5	763.4	756.9	755.2
37.5°	2326.8	1707.9	1007.2	857.7	802.7	767.2	758.5	745.4	734.5	720.4	718.1
40°	2426.0	1721.5	948.8	812.5	761.8	742.1	738.3	720.9	689.8	654.9	650.0
42.5°	2546.5	1730.7	888.3	767.2	718.7	712.2	717.6	687.6	638.0	611.8	612.3
45°	2686.1	1746.0	832.6	722.5	674.6	674.6	697.4	658.2	617.3	601.0	603.6
47.5°	2867.1	1781.4	780.8	673.4	633.7	644.5	652.7	622.7	599.8	579.6	579.1
50°	3128.9	1866.5	727.4	623.8	602.5	624.3	612.9	595.4	568.8	552.4	550.7
52.5°	3453.8	1916.6	680.0	579.1	575.8	597.7	581.3	564.9	544.8	523.0	518.5
55°	3675.2	1926.0	640.2	546.4	557.8	555.7	549.6	534.9	524.0	495.1	495.7
57.5°	3922.8	1944.5	607.4	526.7	546.4	522.3	520.2	507.7	493.5	473.9	467.3
60°	4218.9	1973.4	579.1	519.2	536.6	500.6	489.6	484.7	470.6	460.7	463.5
62.5°	4541.7	1999.6	550.2	520.2	525.1	479.3	463.0	461.4	452.6	449.4	449.4
65°	4762.0	1928.1	514.2	519.2	507.2	457.5	436.8	436.2	429.2	428.0	427.5
67.5°	4685.2	1701.8	465.7	503.9	488.6	435.7	412.8	410.6	401.3	401.9	401.9
70°	4300.2	1379.0	398.6	466.3	465.7	416.0	387.7	380.6	368.1	370.2	372.4
72.5°	3578.2	1021.8	308.6	403.5	429.2	398.1	358.7	347.4	331.6	333.7	333.1
75°	2584.1	694.7	224.7	307.0	373.5	376.8	330.5	310.8	291.7	295.0	296.1
77.5°	1322.4	393.7	165.2	211.6	293.4	342.5	304.8	278.6	274.3	304.8	300.4
80°	431.3	197.4	114.5	148.3	192.5	280.2	267.2	237.2	236.2	243.2	208.9
82.5°	128.6	83.4	73.6	97.6	106.3	214.8	230.6	179.4	154.4	162.5	168.0
85°	44.2	40.4	42.0	48.5	50.7	126.0	161.4	118.9	112.3	123.8	122.2
87.5°	10.4	14.1	12.0	10.9	10.9	30.5	62.7	49.6	68.7	45.8	44.2
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)