

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: P965111

Luminaire Tested: **NAV-SB3D-740-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P965111
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3D-740-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28229.5 lumens
Efficiency: N/A
Efficacy: 129.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

Input Watts (W): 218.1
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



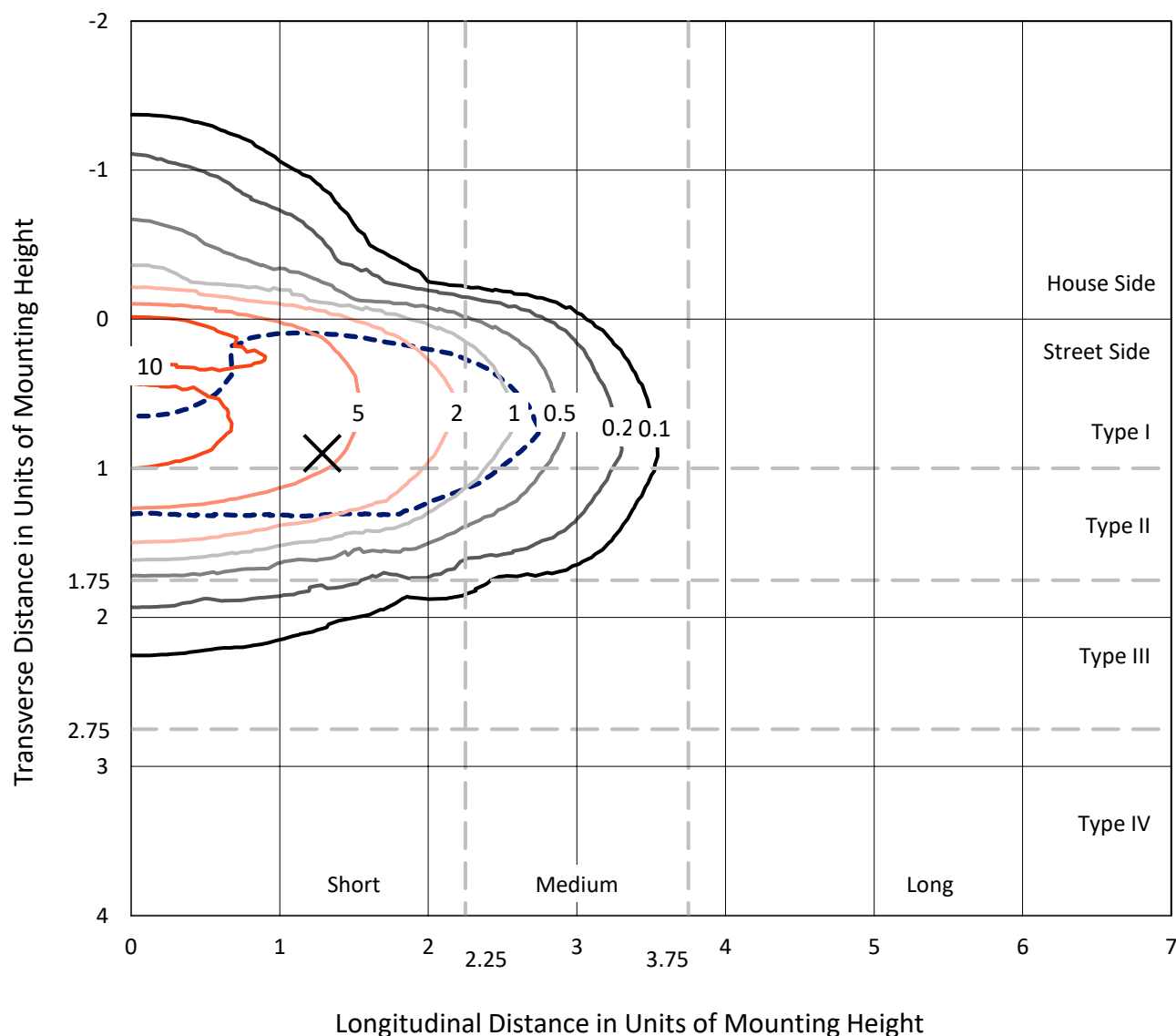
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

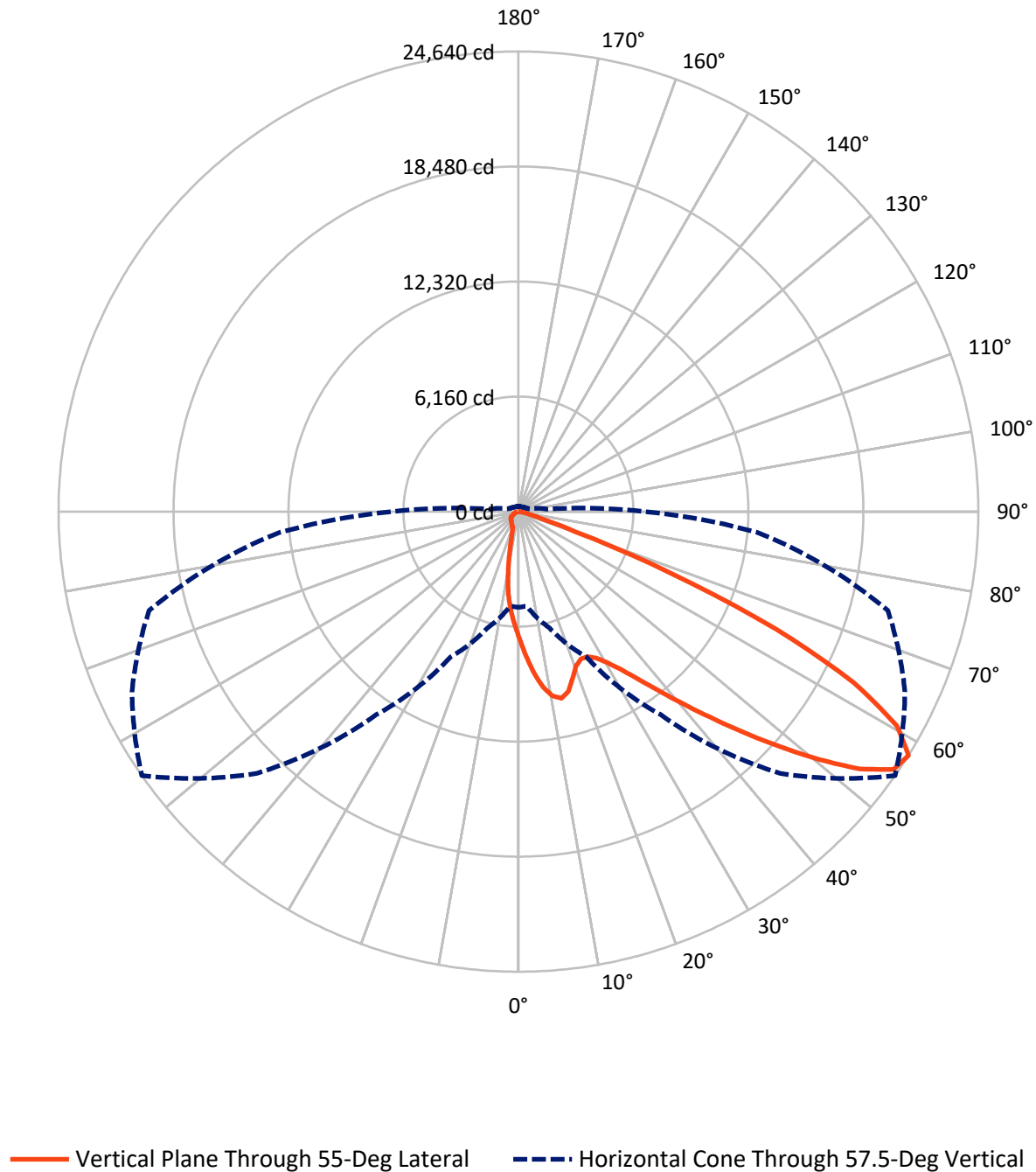


Based on 25 foot mounting height. Maximum calculated value = 15.6 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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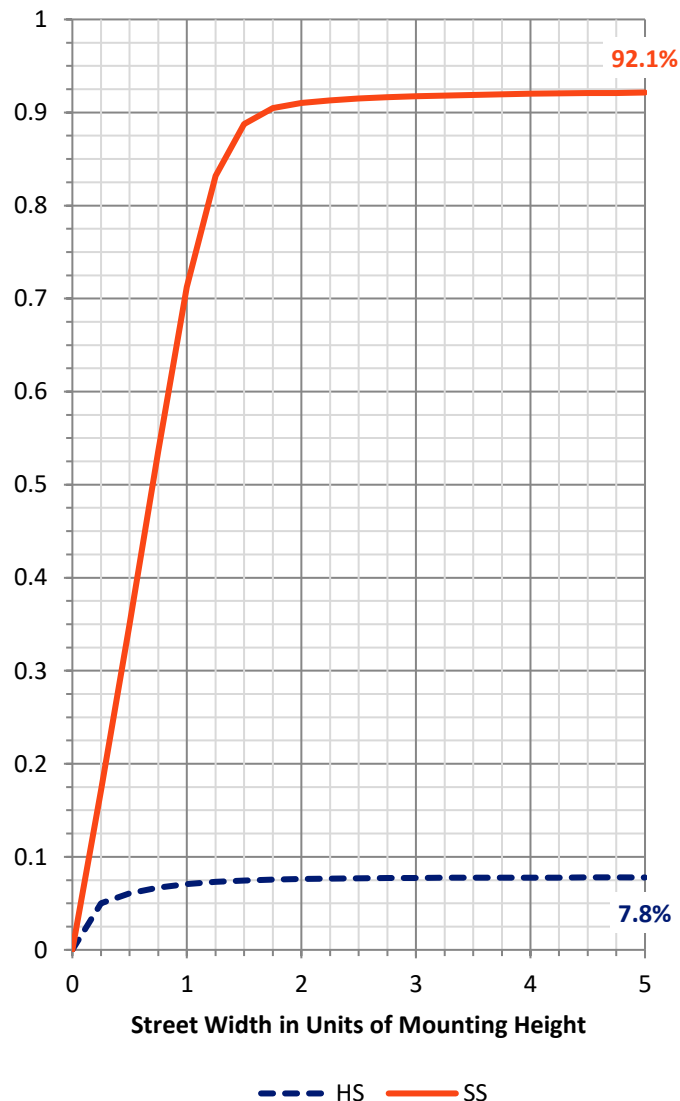
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2204.6	0.0	2204.6
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	26024.9	0.0	26024.9
	% Fixture	92.2	0.0	92.2
Total	Lumens	28229.5	0.0	28229.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	632.9	2.2
10°-20°	1528.9	5.4
20°-30°	2446.2	8.7
30°-40°	4140.3	14.7
40°-50°	6797.5	24.1
50°-60°	7471.0	26.5
60°-70°	4285.4	15.2
70°-80°	875.6	3.1
80°-90°	51.6	0.2
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°	28229.5	100.0
0°-180°	28229.5	100.0

Coefficient of Utilization



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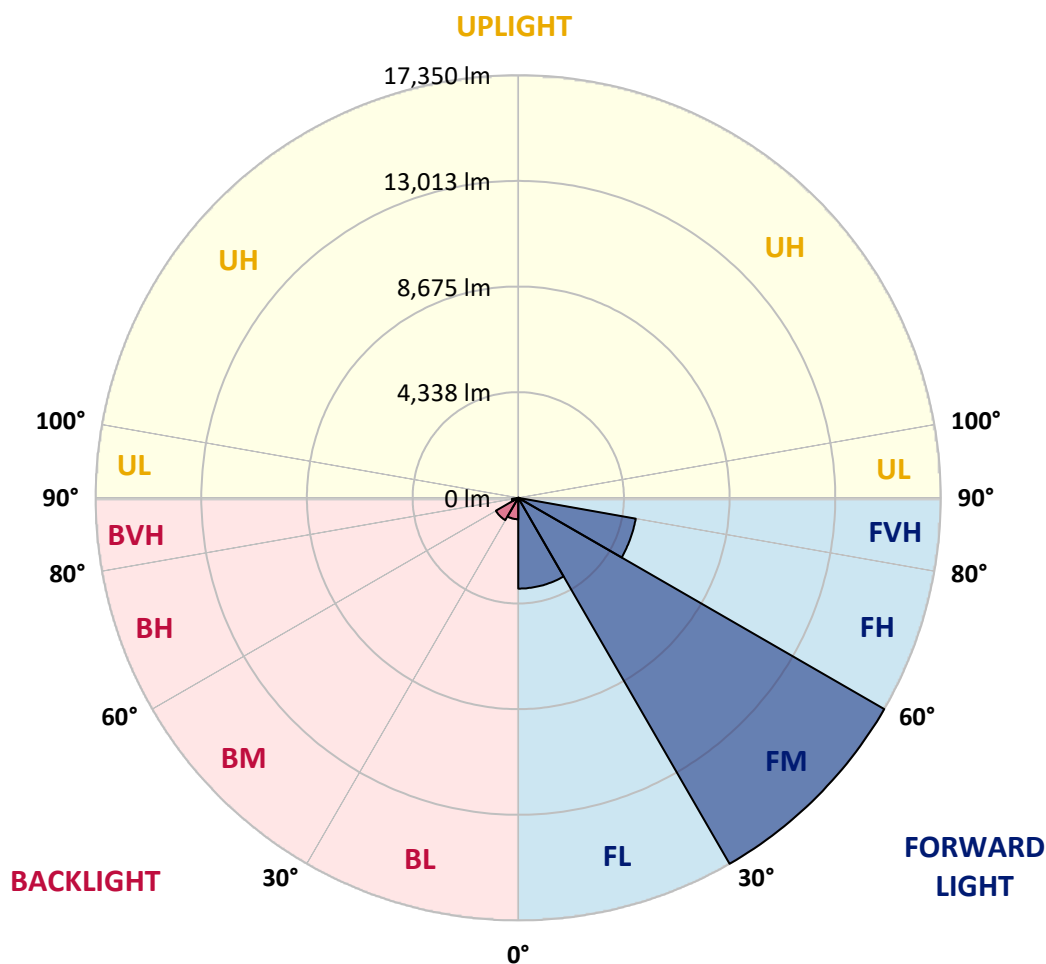
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3727.9	13.2			
FM	(30°-60°)	17350.1	61.5			
FH	(60°-80°)	4898.8	17.4			G2/5000
FVH	(80°-90°)	48.2	0.2			G1/100
BL	(0°-30°)	880.1	3.1	B2/1000		
BM	(30°-60°)	1058.8	3.8	B2/2500		
BH	(60°-80°)	262.2	0.9	B1/500		G1/500
BVH	(80°-90°)	3.5	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-G2

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6802.6	6802.6	6802.6	6802.6	6802.6	6802.6	6802.6	6802.6	6802.6	6802.6	6802.6
2.5°	8440.6	8334.4	8318.8	8297.9	8096.0	7944.5	7725.2	7485.0	7215.2	6940.2	6818.3
5°	9751.3	9667.8	9652.1	9554.6	9324.8	9067.3	8677.3	8184.7	7681.7	7089.8	6835.7
7.5°	10005.5	9989.9	10061.2	10057.7	10026.3	9822.7	9493.8	8907.1	8151.6	7274.3	6880.9
10°	8872.3	8912.4	9124.7	9311.0	9814.0	10106.5	10035.1	9551.2	8635.5	7485.0	6931.5
12.5°	7840.1	7793.1	7944.5	8155.1	8740.0	9610.4	10259.6	10089.1	9189.1	7723.5	7006.3
15°	7192.5	7173.4	7258.6	7356.1	7801.8	8679.1	9998.6	10525.9	9721.7	8005.5	7119.4
17.5°	6985.4	6969.7	6995.8	7020.2	7309.2	7988.0	9377.1	10794.1	10231.8	8327.5	7244.8
20°	7154.2	7133.4	7129.9	7110.7	7230.9	7693.9	8814.9	10813.1	10689.6	8619.9	7352.6
22.5°	7646.8	7622.5	7537.2	7460.6	7471.0	7733.9	8564.2	10621.7	11034.2	8893.2	7420.6
25°	8539.8	8499.8	8322.3	8064.6	7901.0	8012.4	8602.5	10369.3	11363.3	9107.3	7387.5
27.5°	9657.3	9605.2	9377.1	8994.2	8619.9	8484.1	8879.3	10195.3	11636.5	9270.9	7316.1
30°	10752.2	10684.4	10459.8	10162.2	9615.5	9187.4	9378.9	10271.8	11962.1	9441.5	7222.2
32.5°	11934.2	11869.8	11572.1	11203.0	10750.5	10174.4	10062.9	10646.1	12360.7	9680.0	7155.9
35°	13429.4	13328.5	12905.5	12402.4	11922.0	11338.9	10989.0	11291.9	12891.5	10043.8	7192.5
37.5°	15131.9	14996.1	14540.0	13845.5	13218.8	12566.1	12116.9	12179.7	13669.6	10531.2	7305.7
40°	16736.7	16613.2	16191.9	15537.4	14750.6	13958.6	13479.9	13340.7	14743.7	11124.7	7504.1
42.5°	17699.4	17588.0	17410.3	17133.6	16470.4	15662.7	15058.7	14757.5	16014.4	11835.0	7746.0
45°	17753.3	17655.8	17894.3	18216.3	18085.8	17547.9	16811.6	16259.8	17290.3	12501.6	7996.7
47.5°	16889.9	16823.7	17547.9	18672.4	19232.9	19459.2	18780.4	17636.7	18343.4	12980.3	8099.4
50°	14536.6	14512.2	16002.2	18066.6	19669.9	21133.8	20857.0	18917.8	19159.8	13227.5	8002.0
52.5°	12604.3	12515.6	13384.1	16127.5	19034.5	22014.5	22886.6	20174.6	19730.7	13274.5	7773.9
55°	9559.9	9481.6	10571.2	12882.8	16985.7	21701.2	24371.4	21471.4	20139.8	13154.4	7364.8
57.5°	5128.1	5079.3	6456.3	8574.6	13278.0	19821.2	24639.5	22843.0	20484.4	12835.9	6792.2
60°	1996.6	1987.9	2503.2	4160.3	8069.8	16125.7	23287.0	23666.4	20700.3	12444.2	6313.5
62.5°	1208.1	1234.1	1317.7	1867.8	3565.0	10017.6	20169.3	22730.0	20844.8	12085.6	5918.3
65°	999.2	1000.9	1011.4	1282.9	1707.6	4191.5	15184.0	19648.9	20487.9	11446.8	5357.9
67.5°	856.4	872.1	912.1	1018.3	1204.6	1838.1	8741.7	15220.6	18317.3	9960.2	4484.1
70°	675.4	696.3	746.7	837.3	929.6	1150.6	3230.7	10127.3	13993.4	7507.6	3390.9
72.5°	569.2	567.4	593.6	680.6	738.1	809.4	1242.8	5674.6	8132.6	3584.1	1678.0
75°	440.4	457.8	490.9	569.2	604.0	586.6	673.6	2073.2	2913.9	1086.2	570.9
77.5°	344.7	358.5	388.2	464.7	499.6	416.0	388.2	741.5	936.5	389.9	257.6
80°	154.9	167.1	264.6	343.0	407.3	287.2	210.6	379.5	416.0	177.5	130.6
82.5°	27.9	47.0	154.9	181.0	208.9	186.2	109.7	196.7	203.7	71.3	45.3
85°	1.7	3.5	53.9	66.1	83.5	60.9	33.1	78.3	67.9	24.4	17.4
87.5°	0.0	0.0	0.0	1.7	1.7	8.7	10.5	13.9	10.5	8.7	7.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6802.6	6802.6	6802.6	6802.6	6802.6	6802.6	6802.6	6802.6	6802.6	6802.6
2.5°	6692.9	6445.8	6205.6	6008.9	5894.0	5699.0	5570.3	5549.3	5495.3	5542.4
5°	6564.1	6122.0	5674.6	5274.3	4945.3	4520.6	4203.7	4069.8	3953.1	3993.2
7.5°	6503.2	5805.2	5108.9	4424.8	3721.6	3042.7	2537.9	2327.3	2167.2	2189.8
10°	6421.4	5476.2	4384.8	3340.4	2398.7	1728.5	1380.4	1251.5	1180.2	1181.9
12.5°	6358.8	5082.8	3544.0	2264.6	1460.4	1103.6	995.7	964.3	943.4	945.2
15°	6327.4	4619.8	2713.7	1509.2	1044.4	934.8	908.7	894.7	880.8	879.0
17.5°	6275.2	4104.5	1986.1	1101.9	913.9	875.6	852.9	837.3	819.9	816.4
20°	6196.8	3519.6	1451.7	931.3	856.4	826.9	795.5	774.6	753.7	750.2
22.5°	6052.4	2901.8	1115.8	861.6	814.7	781.6	743.2	718.9	698.0	694.5
25°	5784.3	2322.0	939.9	818.2	778.1	738.1	696.3	663.2	644.0	640.6
27.5°	5444.9	1824.3	852.9	778.1	731.1	694.5	647.5	616.2	598.8	595.3
30°	5044.5	1404.8	802.5	732.9	675.4	644.0	602.3	576.2	565.7	565.7
32.5°	4612.8	1122.8	781.6	687.6	626.7	591.8	558.7	548.3	544.8	543.0
35°	4207.2	974.8	771.1	651.0	583.1	550.0	536.2	537.9	544.8	544.8
37.5°	3846.9	927.8	765.9	624.9	544.8	515.3	524.0	539.7	532.7	532.7
40°	3521.4	933.1	762.4	605.8	513.5	496.1	513.5	501.3	483.9	482.2
42.5°	3272.5	976.5	755.4	590.1	494.4	482.2	475.2	456.0	454.3	457.8
45°	3091.5	1014.9	753.7	583.1	473.4	450.8	442.2	423.0	457.8	466.5
47.5°	2877.4	1014.9	753.7	558.7	438.7	430.0	416.0	395.1	430.0	438.7
50°	2600.6	950.4	724.2	530.9	410.8	405.6	381.2	355.1	348.1	353.3
52.5°	2250.7	833.8	649.2	492.6	382.9	372.5	343.0	323.8	318.6	318.6
55°	1852.1	698.0	548.3	437.0	353.3	334.3	313.3	304.6	299.4	295.9
57.5°	1505.7	572.7	440.4	388.2	325.5	301.1	294.2	283.7	275.0	269.8
60°	1235.8	450.8	363.8	344.7	297.7	275.0	273.3	259.3	236.8	233.3
62.5°	953.9	330.8	306.4	299.4	269.8	250.6	247.1	219.4	184.5	177.5
65°	673.6	257.6	247.1	262.8	240.3	222.8	214.1	172.3	135.8	130.6
67.5°	473.4	215.9	195.0	229.8	208.9	186.2	181.0	146.3	113.2	109.7
70°	337.7	175.8	160.1	196.7	167.1	163.6	153.1	121.9	92.2	88.8
72.5°	238.5	134.1	123.6	170.6	114.9	141.0	125.4	94.0	69.6	66.1
75°	175.8	95.7	87.0	99.2	83.5	106.2	88.8	62.6	43.6	41.8
77.5°	128.8	60.9	52.2	48.8	48.8	66.1	48.8	26.1	19.2	17.4
80°	90.5	27.9	24.4	20.9	19.2	15.7	7.0	3.5	1.7	1.7
82.5°	53.9	12.2	12.2	8.7	5.2	0.0	0.0	0.0	0.0	0.0
85°	12.2	5.2	5.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.7	1.7	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

(END OF REPORT)