

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: P963023

Luminaire Tested: **NAV-SB2D-740-U-T3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963023
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-740-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17307.1 lumens
Efficiency: N/A
Efficacy: 117.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

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

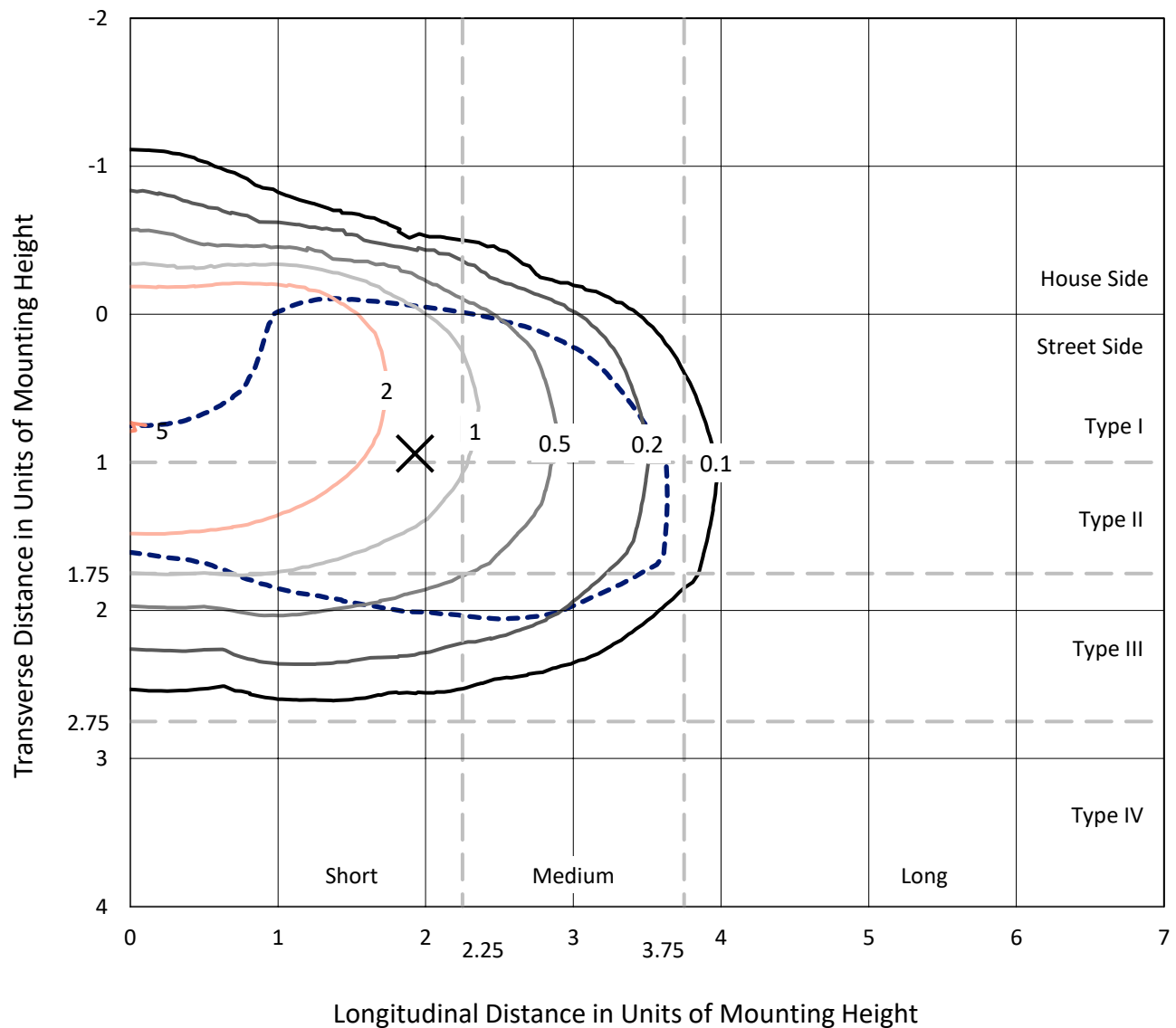


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

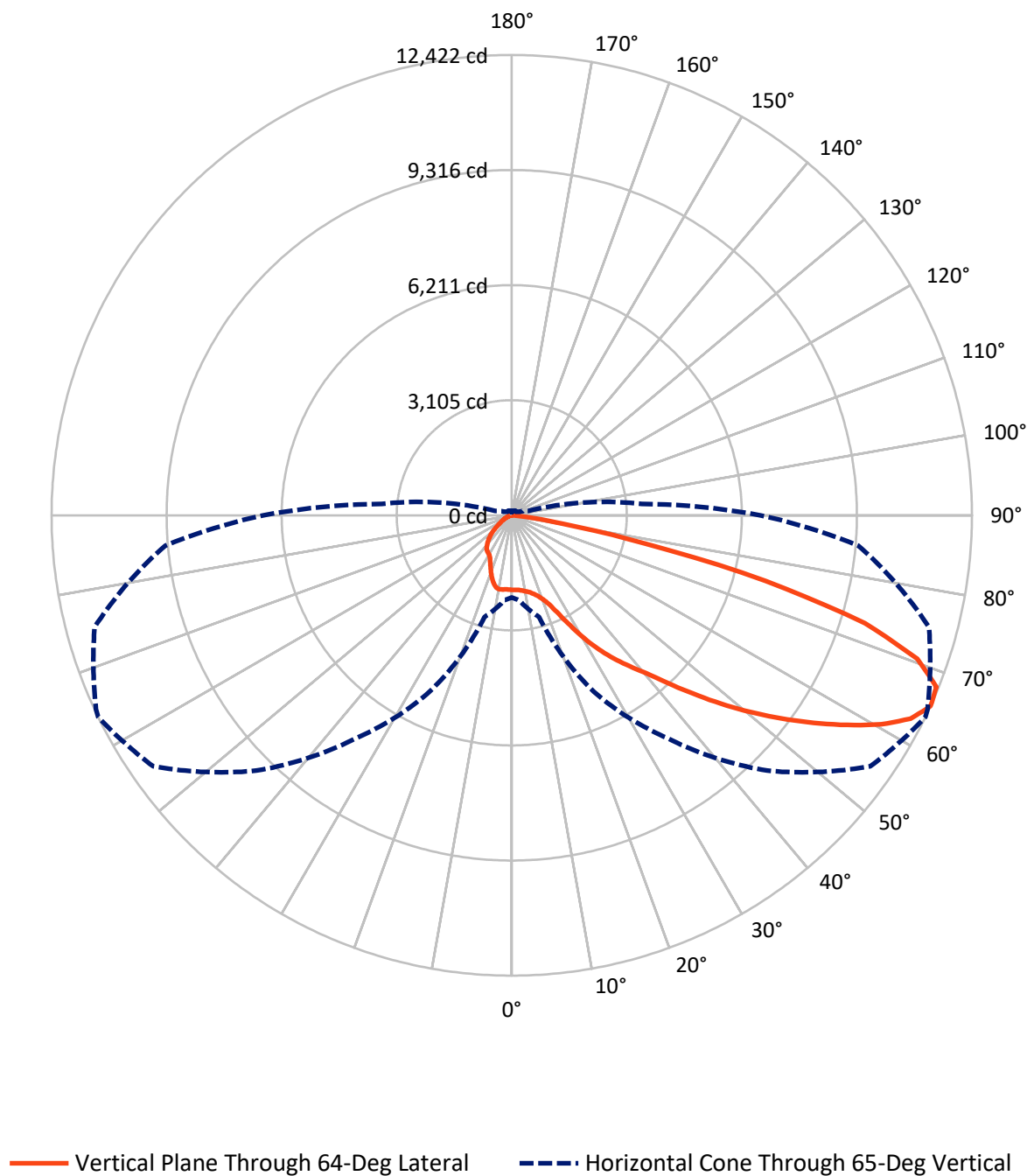


Based on 25 foot mounting height. Maximum calculated value = 5.1 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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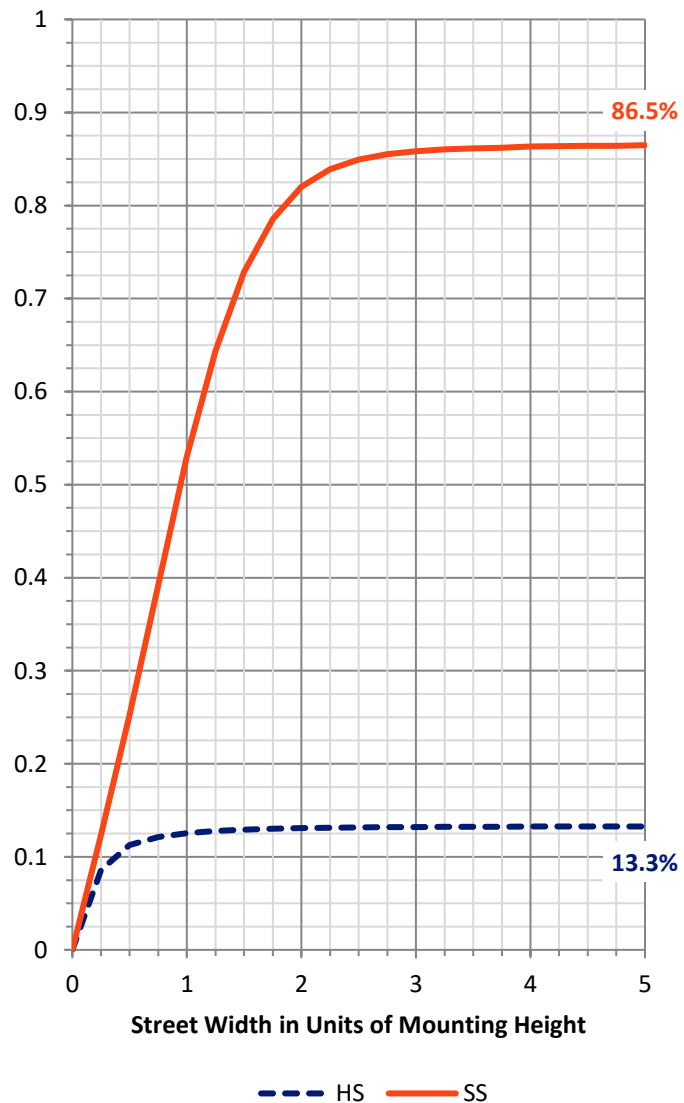
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2314.5	0.0	2314.5
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	14992.7	0.0	14992.7
	% Fixture	86.6	0.0	86.6
Total	Lumens	17307.1	0.0	17307.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.7	1.1
10°-20°	503.7	2.9
20°-30°	954.5	5.5
30°-40°	1931.5	11.2
40°-50°	3290.3	19.0
50°-60°	4474.6	25.9
60°-70°	4201.8	24.3
70°-80°	1683.4	9.7
80°-90°	81.6	0.5
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°	17307.1	100.0
0°-180°	17307.1	100.0

Coefficient of Utilization



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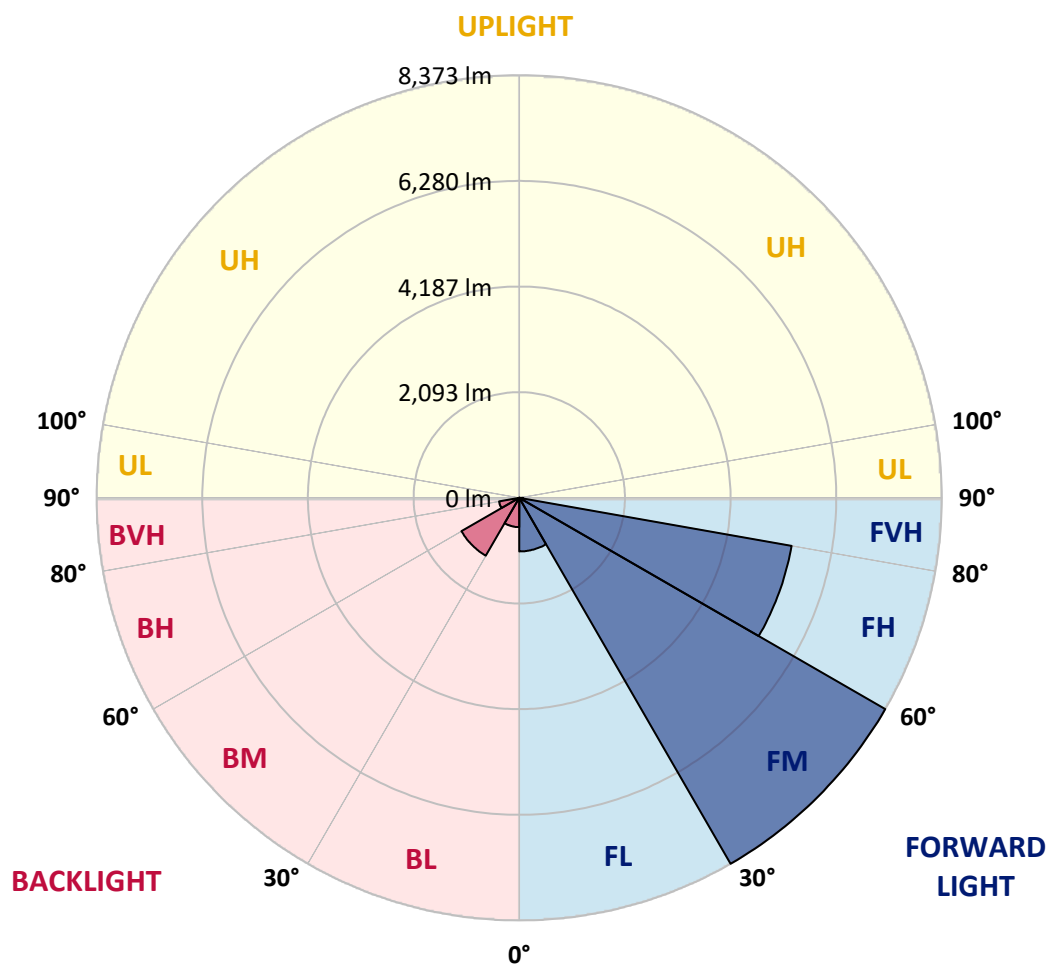
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1062.9	6.1			
FM	(30°-60°)	8373.2	48.4			
FH	(60°-80°)	5479.0	31.7			G3/7500
FVH	(80°-90°)	77.6	0.4			G1/100
BL	(0°-30°)	581.1	3.4	B2/1000		
BM	(30°-60°)	1323.2	7.6	B2/2500		
BH	(60°-80°)	406.2	2.3	B1/500		G1/500
BVH	(80°-90°)	4.0	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-G3

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2013.0	2013.0	2013.0	2013.0	2013.0	2013.0	2013.0	2013.0	2013.0	2013.0	2013.0
2.5°	2006.0	2020.0	2016.5	2013.0	2011.9	2014.1	2015.4	2014.1	2014.1	2014.1	2015.4
5°	1967.8	1979.4	1979.4	1987.5	1999.1	2013.0	2023.5	2025.8	2028.1	2031.5	2030.4
7.5°	1894.6	1903.9	1910.9	1937.6	1966.6	2003.7	2035.0	2051.3	2053.6	2066.4	2071.0
10°	1844.8	1856.4	1868.0	1895.8	1937.6	1993.3	2046.6	2086.1	2091.9	2122.1	2136.0
12.5°	1842.4	1854.0	1869.1	1899.3	1948.0	2007.2	2072.1	2129.0	2139.5	2183.6	2212.6
15°	1866.8	1880.8	1894.6	1931.8	1984.0	2055.9	2125.5	2196.3	2206.7	2269.5	2300.7
17.5°	1916.7	1935.3	1945.7	1982.9	2038.5	2118.6	2210.2	2291.5	2300.7	2373.8	2413.3
20°	2015.4	2037.4	2040.9	2071.0	2125.5	2211.4	2320.5	2421.4	2433.0	2516.6	2560.7
22.5°	2219.5	2250.8	2223.0	2238.1	2286.8	2372.7	2491.1	2618.7	2634.9	2730.0	2769.4
25°	2579.2	2623.3	2551.3	2525.8	2546.7	2636.0	2784.5	2945.8	2964.4	3041.0	3060.6
27.5°	3285.7	3229.0	3119.9	3013.1	2950.5	3001.5	3168.6	3368.2	3391.3	3465.6	3442.4
30°	4062.0	4012.1	3864.8	3628.0	3479.6	3471.4	3625.7	3848.5	3875.2	3945.9	3875.2
32.5°	4839.3	4791.8	4631.7	4340.5	4082.9	3955.3	4062.0	4309.1	4323.0	4368.2	4263.8
35°	5603.9	5555.2	5395.1	5096.9	4780.2	4490.1	4469.2	4747.7	4752.3	4799.9	4644.4
37.5°	6373.1	6332.6	6162.0	5869.6	5557.5	5157.2	4963.5	5163.0	5168.9	5215.2	5054.0
40°	6921.9	6939.4	6822.2	6595.9	6327.9	5890.5	5518.1	5605.1	5570.3	5648.0	5551.7
42.5°	7393.0	7427.8	7325.7	7212.0	7056.5	6671.3	6204.9	6189.9	6134.1	6175.9	6076.1
45°	7800.2	7829.3	7737.5	7710.9	7707.4	7437.1	6955.5	6865.0	6787.3	6779.2	6659.7
47.5°	7949.9	8005.6	8045.0	8134.4	8308.4	8194.7	7731.8	7591.4	7504.3	7440.6	7251.5
50°	8006.8	8065.9	8200.5	8460.3	8872.3	8921.0	8504.5	8346.7	8240.0	8123.9	7845.5
52.5°	7930.2	8035.8	8216.7	8654.2	9251.6	9503.4	9245.9	9107.8	8986.0	8796.9	8383.8
55°	7478.8	7584.4	7954.5	8651.8	9440.8	9911.9	9946.6	9885.2	9748.3	9450.1	8818.9
57.5°	6527.4	6684.1	7270.0	8357.1	9437.3	10263.4	10633.6	10677.6	10524.4	10097.5	9161.1
60°	5209.5	5421.7	6136.5	7703.9	9146.1	10453.7	11235.6	11456.1	11293.7	10735.6	9438.5
62.5°	3635.0	3881.0	4557.4	6680.6	8480.1	10316.7	11675.4	12082.6	11959.6	11306.5	9545.2
65°	2217.2	2296.1	2841.4	5257.0	7347.7	9743.6	11811.2	12421.5	12380.8	11655.7	9387.5
67.5°	1476.9	1543.1	1699.8	3604.8	5703.7	8598.4	11486.3	12362.2	12373.8	11598.8	8809.7
70°	889.9	946.8	1048.9	2096.5	3696.5	6805.9	10480.3	11608.1	11675.4	10838.9	7714.4
72.5°	366.6	404.9	497.7	950.3	1914.4	4319.6	8345.6	9966.4	10123.0	9113.6	5920.6
75°	207.7	227.4	292.3	476.8	830.8	2013.0	5055.1	7075.1	7306.0	6281.5	3561.9
77.5°	138.1	147.4	189.1	308.6	467.6	686.9	2160.4	3686.0	4127.0	3430.8	1541.9
80°	92.9	101.0	130.0	206.5	304.0	294.7	688.0	1365.6	1680.0	1178.8	375.9
82.5°	62.6	63.9	92.9	135.7	192.6	142.7	203.1	424.7	533.7	341.1	142.7
85°	36.0	34.8	68.5	78.9	85.9	59.1	61.5	127.6	167.1	143.9	81.2
87.5°	4.6	7.0	26.6	20.9	11.6	12.8	12.8	22.0	32.5	34.8	17.4
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°	2013.0	2013.0	2013.0	2013.0	2013.0	2013.0	2013.0	2013.0	2013.0	2013.0	2013.0
2.5°	2015.4	2014.1	2010.6	2007.2	1999.1	1994.4	1996.8	1994.4	1993.3	1994.4	1999.1
5°	2030.4	2026.9	2017.6	2006.0	1989.8	1970.0	1957.3	1938.8	1921.4	1910.9	1913.3
7.5°	2071.0	2067.5	2054.8	2022.3	1970.0	1887.7	1812.3	1746.2	1696.3	1667.3	1668.4
10°	2136.0	2130.2	2110.5	2038.5	1901.6	1721.8	1572.1	1448.0	1366.7	1328.5	1325.0
12.5°	2212.6	2205.6	2170.7	2023.5	1771.7	1490.9	1284.3	1146.3	1070.9	1037.2	1033.8
15°	2303.1	2293.7	2225.3	1951.5	1582.6	1235.6	1046.5	943.3	894.5	864.4	865.5
17.5°	2415.6	2399.3	2266.0	1843.6	1377.2	1040.7	900.4	822.6	779.7	750.7	748.4
20°	2561.8	2535.1	2298.5	1714.8	1188.1	917.8	801.8	736.8	704.3	678.8	674.1
22.5°	2766.0	2727.7	2337.8	1575.6	1054.6	833.0	728.7	681.0	654.4	625.4	620.7
25°	3018.9	2973.6	2386.6	1446.8	963.0	759.9	675.3	635.8	604.4	570.8	567.3
27.5°	3372.8	3291.6	2444.6	1341.2	884.1	697.3	626.5	582.4	546.4	518.6	512.8
30°	3767.3	3633.8	2495.7	1277.5	812.2	639.3	562.7	518.6	484.9	465.2	461.8
32.5°	4140.9	3959.9	2529.3	1249.6	747.2	573.2	493.1	445.6	420.0	414.2	417.7
35°	4493.6	4254.6	2525.8	1222.9	689.2	507.1	424.7	375.9	356.2	359.7	359.7
37.5°	4899.6	4568.9	2501.4	1181.1	641.6	446.7	365.5	322.6	305.1	306.3	311.0
40°	5371.8	4932.1	2486.3	1102.2	589.4	391.0	316.7	282.0	269.2	264.6	263.3
42.5°	5875.4	5283.7	2488.7	1012.9	524.4	341.1	283.1	254.1	242.5	239.0	237.8
45°	6381.2	5618.9	2492.2	920.0	455.9	302.8	258.7	234.4	227.4	222.7	222.7
47.5°	6856.9	5904.4	2427.2	820.3	388.7	273.8	239.0	222.7	217.0	211.2	211.2
50°	7300.2	6094.6	2270.6	704.3	335.3	250.6	224.0	212.3	206.5	200.7	200.7
52.5°	7644.8	6124.9	2011.9	584.8	298.2	233.2	214.6	204.2	197.2	191.5	190.2
55°	7797.9	5935.8	1644.0	473.3	269.2	218.1	205.4	195.0	186.8	181.0	179.8
57.5°	7758.4	5537.8	1282.1	380.6	241.3	203.1	193.7	186.8	177.5	168.2	167.1
60°	7564.7	5005.3	966.5	316.7	215.8	186.8	181.0	175.2	162.5	148.5	146.2
62.5°	7229.4	4335.8	689.2	262.2	188.0	168.2	165.9	161.2	142.7	117.2	114.9
65°	6716.6	3522.4	464.1	218.1	161.2	147.4	148.5	140.4	116.0	87.0	84.7
67.5°	5967.0	2575.7	297.0	178.7	134.6	123.0	124.1	119.5	98.6	74.2	70.7
70°	5012.1	1705.5	193.7	135.7	107.9	95.1	102.1	103.2	83.5	60.4	58.0
72.5°	3674.4	1007.1	135.7	101.0	78.9	66.1	83.5	85.9	67.3	45.2	42.9
75°	2094.2	478.1	102.1	73.1	48.7	46.4	65.0	65.0	46.4	30.1	27.9
77.5°	879.4	199.6	72.0	47.6	27.9	26.6	44.1	40.6	23.2	13.9	13.9
80°	254.1	89.4	38.3	23.2	11.6	10.5	17.4	12.8	5.8	2.4	2.4
82.5°	99.7	39.5	15.1	9.3	4.6	4.6	2.4	0.0	0.0	0.0	0.0
85°	59.1	16.2	7.0	3.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	15.1	3.5	2.4	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)