

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: P961043

Luminaire Tested: **NAV-SB1D-830-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961043
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-830-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD
THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7098.1 lumens
Efficiency: N/A
Efficacy: 89.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

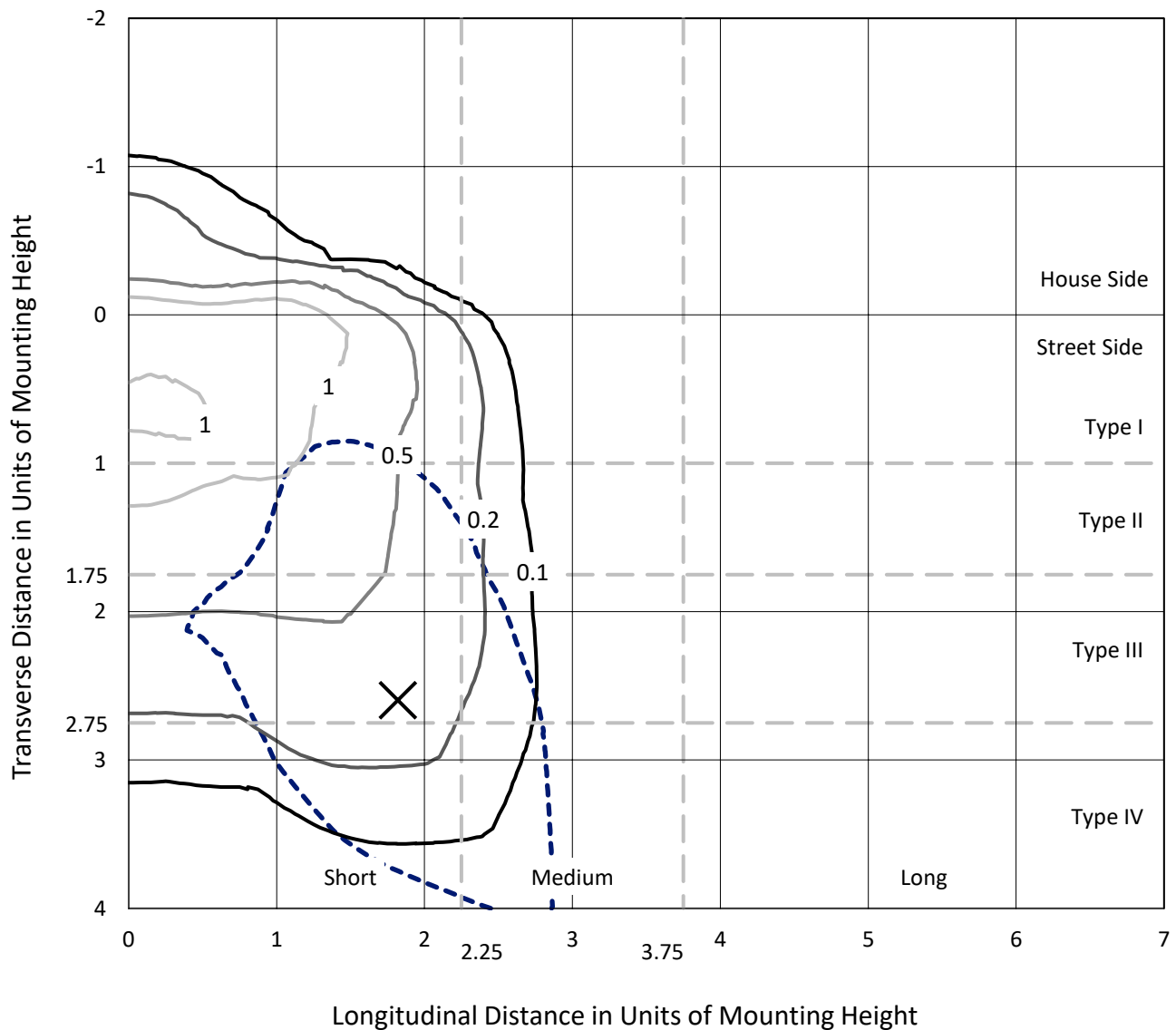
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

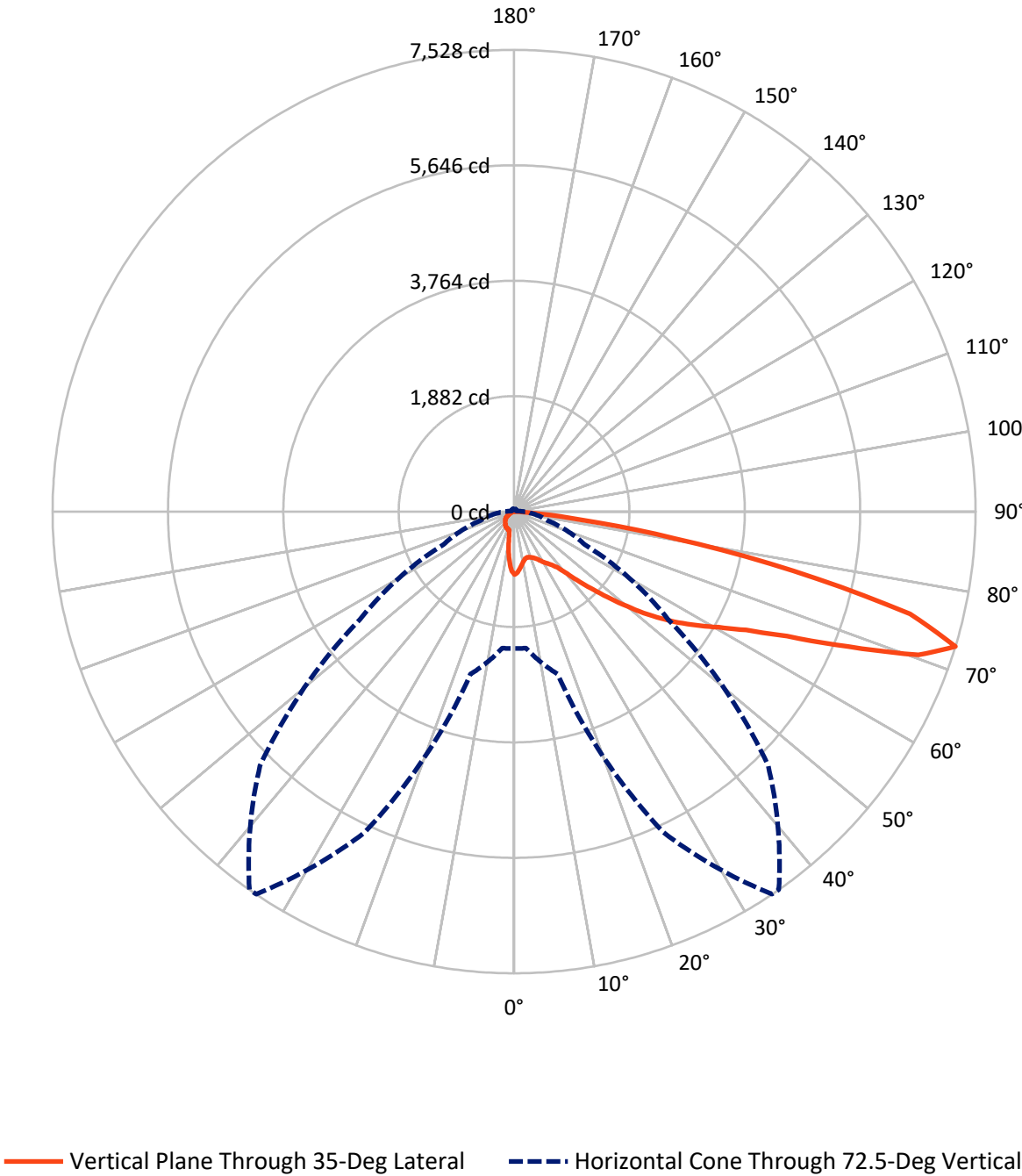
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.6 fc
Type IV - Short - N/A

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Luminous Intensity Polar Plot



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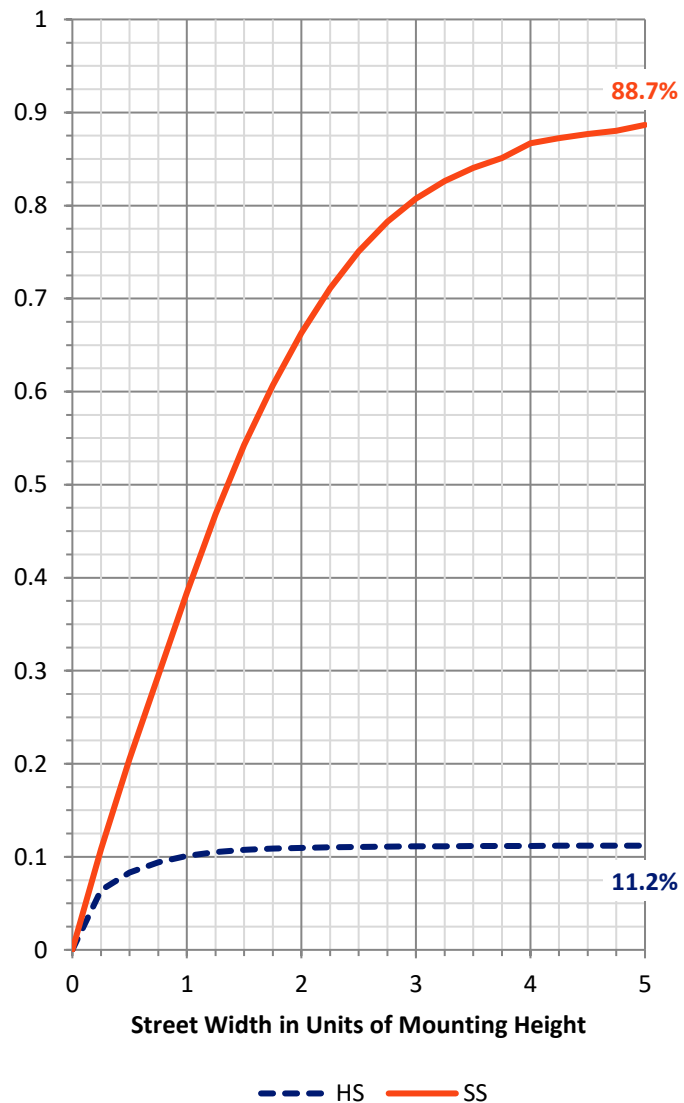
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	798.9	0.0	798.9
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	6299.3	0.0	6299.3
	% Fixture	88.7	0.0	88.7
Total	Lumens	7098.1	0.0	7098.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.5	1.2
10°-20°	197.8	2.8
20°-30°	321.3	4.5
30°-40°	536.0	7.6
40°-50°	1014.2	14.3
50°-60°	1611.5	22.7
60°-70°	1993.5	28.1
70°-80°	1239.2	17.5
80°-90°	100.1	1.4
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°	7098.1	100.0
0°-180°	7098.1	100.0

Coefficient of Utilization



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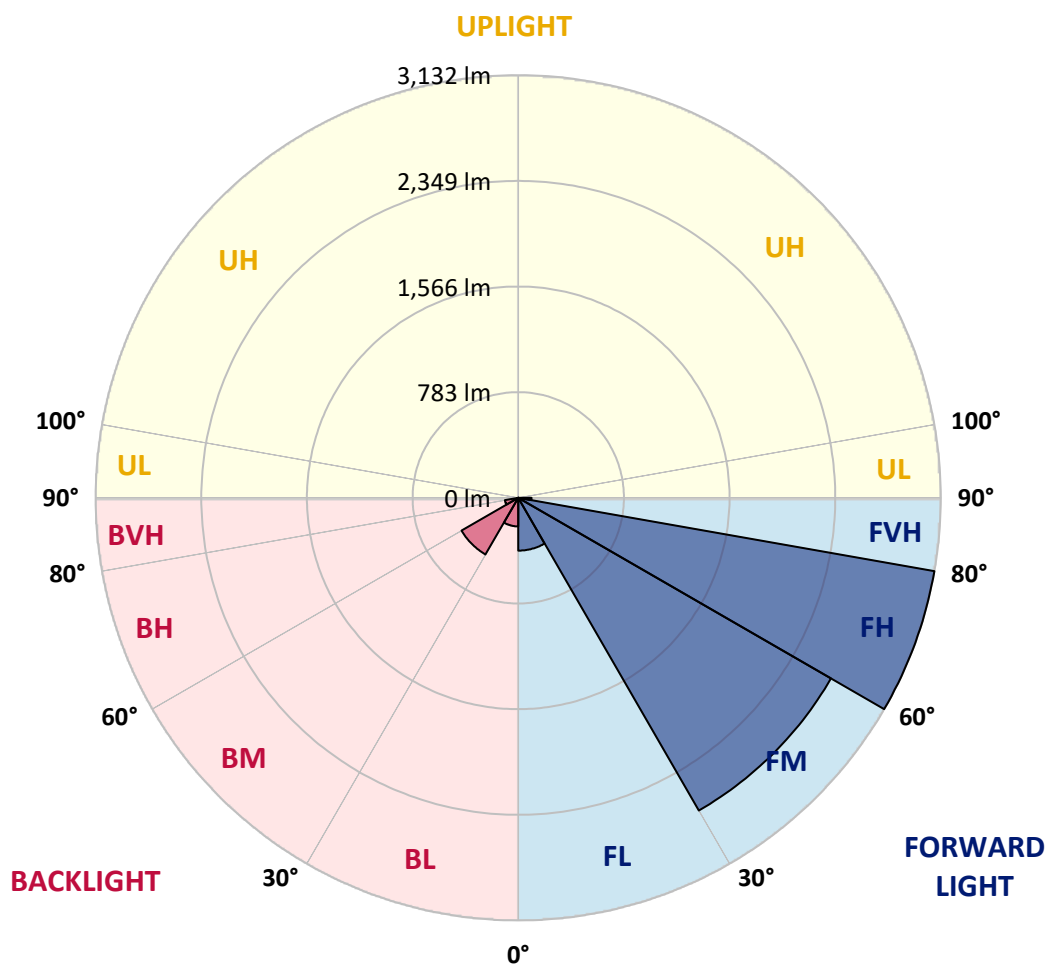
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	391.3	5.5			
FM	(30°-60°)	2676.7	37.7			
FH	(60°-80°)	3132.5	44.1			G2/5000
FVH	(80°-90°)	98.8	1.4			G1/100
BL	(0°-30°)	212.3	3.0	B1/500		
BM	(30°-60°)	485.0	6.8	B1/1000		
BH	(60°-80°)	100.2	1.4	B0/110		G0/110
BVH	(80°-90°)	1.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	1028.8	1028.8	1028.8	1028.8	1028.8	1028.8	1028.8	1028.8	1028.8	1028.8	1028.8
2.5°	983.0	991.3	992.9	995.5	995.5	998.6	1003.8	1011.1	1023.1	1029.3	1033.4
5°	906.0	912.2	920.0	926.3	938.3	939.8	960.1	979.9	1007.5	1028.3	1042.8
7.5°	828.5	835.8	846.2	861.3	876.9	881.6	912.2	945.6	989.2	1028.3	1052.7
10°	773.9	774.4	783.8	798.9	823.8	829.5	867.0	914.3	968.9	1022.0	1062.0
12.5°	743.2	746.8	751.0	762.5	786.4	790.1	830.0	885.7	948.6	1018.3	1073.0
15°	743.2	745.8	748.5	754.2	773.4	776.5	811.9	867.6	938.3	1019.9	1090.6
17.5°	751.0	755.2	753.1	759.8	780.1	782.3	813.4	862.3	937.8	1029.8	1117.7
20°	769.8	772.8	768.7	772.8	793.1	797.3	829.5	872.2	946.6	1046.9	1151.5
22.5°	799.4	800.9	791.1	794.2	815.0	820.2	857.6	900.3	967.9	1074.5	1196.8
25°	836.8	840.0	824.9	828.5	848.3	854.5	897.7	942.4	1001.7	1112.5	1254.5
27.5°	880.0	881.6	868.6	868.1	893.5	902.4	946.1	994.5	1046.9	1160.3	1327.3
30°	929.4	934.1	921.6	919.5	951.8	959.1	1002.2	1058.4	1113.6	1232.2	1430.8
32.5°	968.4	972.1	964.8	970.0	1002.8	1008.5	1070.4	1148.9	1218.1	1334.0	1571.7
35°	1024.6	1026.6	1010.0	1019.4	1056.9	1071.4	1163.5	1275.8	1349.6	1462.0	1755.8
37.5°	1227.9	1227.9	1157.2	1110.9	1146.8	1159.8	1290.9	1435.5	1512.0	1633.6	1987.8
40°	1509.3	1504.6	1401.2	1306.5	1301.9	1327.3	1472.4	1636.7	1721.5	1839.6	2249.0
42.5°	1809.4	1802.2	1661.2	1567.5	1552.0	1560.8	1682.0	1884.9	1971.2	2090.8	2529.8
45°	2075.7	2073.7	1944.6	1818.8	1790.7	1818.8	1943.6	2175.0	2237.0	2362.8	2810.1
47.5°	2298.9	2298.9	2204.7	2122.6	2107.9	2124.6	2297.8	2497.0	2491.3	2652.5	3083.1
50°	2555.7	2553.7	2464.2	2428.8	2443.9	2467.4	2705.6	2836.1	2754.5	2937.0	3327.0
52.5°	2735.7	2748.2	2717.5	2711.8	2788.8	2829.3	3119.6	3168.0	2990.0	3206.9	3509.6
55°	2878.2	2892.8	2928.1	2968.2	3116.4	3169.5	3520.6	3482.5	3187.1	3441.0	3614.7
57.5°	3080.0	3059.2	3113.8	3192.9	3432.6	3496.6	3909.0	3779.6	3345.8	3630.9	3626.1
60°	3325.0	3328.1	3337.5	3437.3	3748.3	3830.5	4291.9	4060.4	3447.7	3747.3	3499.2
62.5°	3619.4	3624.1	3643.3	3796.7	4172.3	4249.8	4699.6	4290.3	3494.5	3714.6	3171.6
65°	3599.1	3618.9	3833.6	4358.4	4816.7	4893.0	5175.5	4451.6	3423.8	3415.0	2582.3
67.5°	3278.7	3311.0	3670.3	5029.4	5788.2	5873.5	5750.8	4483.2	3118.6	2655.7	1684.6
70°	2858.4	2869.9	3302.1	5632.7	6913.1	6999.5	6265.6	4134.2	2366.4	1481.2	754.7
72.5°	2232.2	2234.9	2742.0	5772.6	7523.7	7528.4	5861.6	3069.1	1272.6	569.0	262.1
75°	1594.6	1579.0	1836.5	4681.4	6619.3	6672.3	4394.3	1439.6	486.3	268.9	130.6
77.5°	855.1	872.2	1039.1	2776.3	4572.7	4663.2	2397.7	415.0	247.5	183.1	86.3
80°	264.2	278.8	426.0	1271.1	2590.1	2644.7	888.9	184.6	172.7	130.6	56.7
82.5°	83.2	86.3	198.6	534.1	1075.0	1100.0	257.5	104.6	118.1	86.3	33.3
85°	23.9	24.4	88.5	199.2	265.8	271.0	72.3	40.6	67.6	53.6	17.1
87.5°	2.6	8.3	33.3	33.3	23.4	22.9	7.8	8.8	19.3	6.8	3.1
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°	1028.8	1028.8	1028.8	1028.8	1028.8	1028.8	1028.8	1028.8	1028.8	1028.8	1028.8
2.5°	1030.8	1031.4	1024.6	1013.1	1000.7	990.3	977.2	966.9	959.6	957.5	961.1
5°	1038.1	1034.4	1015.3	980.4	938.8	902.9	862.8	831.1	810.4	801.4	804.6
7.5°	1049.1	1038.6	996.5	927.8	848.3	777.6	705.8	650.2	614.8	597.1	599.6
10°	1058.4	1037.6	965.3	851.9	730.2	623.1	526.3	459.2	421.8	404.2	404.7
12.5°	1067.2	1037.1	924.8	762.0	597.1	466.0	376.1	342.8	332.3	328.7	327.7
15°	1083.9	1038.6	873.8	659.0	464.4	352.1	319.4	318.8	320.9	319.9	319.4
17.5°	1106.8	1040.2	816.0	549.7	358.3	310.5	308.9	313.6	316.7	315.2	314.7
20°	1136.4	1046.4	754.7	441.6	307.9	300.1	303.7	307.9	310.5	307.9	307.4
22.5°	1178.0	1057.4	687.6	354.8	291.8	293.9	296.9	301.7	304.2	300.6	300.1
25°	1229.0	1074.5	621.6	308.4	283.9	286.6	291.3	296.4	299.6	295.9	295.4
27.5°	1295.1	1102.1	560.7	298.0	276.1	277.8	284.5	292.3	296.4	291.8	291.8
30°	1390.7	1147.4	508.1	302.7	271.5	267.8	277.3	288.1	292.8	288.6	288.1
32.5°	1517.6	1211.3	475.9	310.0	269.4	256.5	265.3	279.3	287.1	284.5	284.5
35°	1684.1	1308.6	463.4	318.3	267.8	244.5	250.7	265.8	279.3	281.9	281.9
37.5°	1885.9	1443.8	467.1	322.0	263.2	234.5	237.7	250.7	268.3	276.6	278.8
40°	2115.3	1601.4	487.9	318.3	258.0	226.2	226.7	236.7	252.3	264.8	268.9
42.5°	2351.9	1785.6	526.3	304.7	253.3	218.9	217.4	224.2	234.5	243.4	247.0
45°	2577.1	1974.9	564.3	286.1	247.5	211.7	208.1	210.6	212.7	216.4	218.4
47.5°	2773.6	2107.9	553.4	268.9	239.7	203.4	197.1	196.1	189.8	189.3	188.8
50°	2909.5	2137.1	491.5	251.7	228.4	194.0	184.1	177.8	167.0	161.7	162.3
52.5°	2952.6	2022.1	401.5	234.5	209.6	181.5	167.5	157.5	144.1	139.4	138.9
55°	2895.4	1796.9	320.9	213.7	183.6	164.9	149.2	136.2	125.4	119.6	119.6
57.5°	2755.5	1510.3	253.8	189.3	156.0	146.2	130.6	117.6	108.1	102.5	101.4
60°	2523.5	1199.4	200.8	160.2	133.1	125.9	109.8	101.4	93.1	86.3	84.8
62.5°	2171.5	856.1	157.5	126.9	111.3	103.0	93.6	87.3	77.5	68.2	66.5
65°	1694.5	523.8	121.7	93.1	89.5	85.3	79.5	73.9	61.9	52.5	50.9
67.5°	1068.8	248.0	86.8	70.2	70.7	68.7	66.0	61.4	52.5	44.2	43.2
70°	470.7	120.1	57.2	53.6	52.5	52.5	54.6	53.1	44.7	36.9	35.4
72.5°	160.2	64.5	42.6	40.6	37.9	37.4	45.8	44.2	35.9	28.6	27.1
75°	83.7	43.2	31.2	29.1	22.9	27.6	36.4	34.3	25.5	18.8	17.1
77.5°	54.6	30.6	21.3	18.8	13.0	18.2	27.1	23.9	15.1	9.3	8.3
80°	34.3	20.3	12.5	8.8	6.3	9.8	14.6	10.4	5.7	2.0	1.5
82.5°	18.2	10.4	4.7	3.1	2.6	3.1	3.7	2.6	1.0	0.0	0.0
85°	7.3	3.7	1.5	1.0	0.5	0.0	1.0	0.5	0.0	0.0	0.0
87.5°	2.6	0.5	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)