

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: P969348

Luminaire Tested: **NAV-SB5D-740-U-T3R-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969348
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-6)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-740-U-T3R-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 4000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46407.9 lumens
Efficiency: N/A
Efficacy: 127.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G5

Input Watts (W): 364.9
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

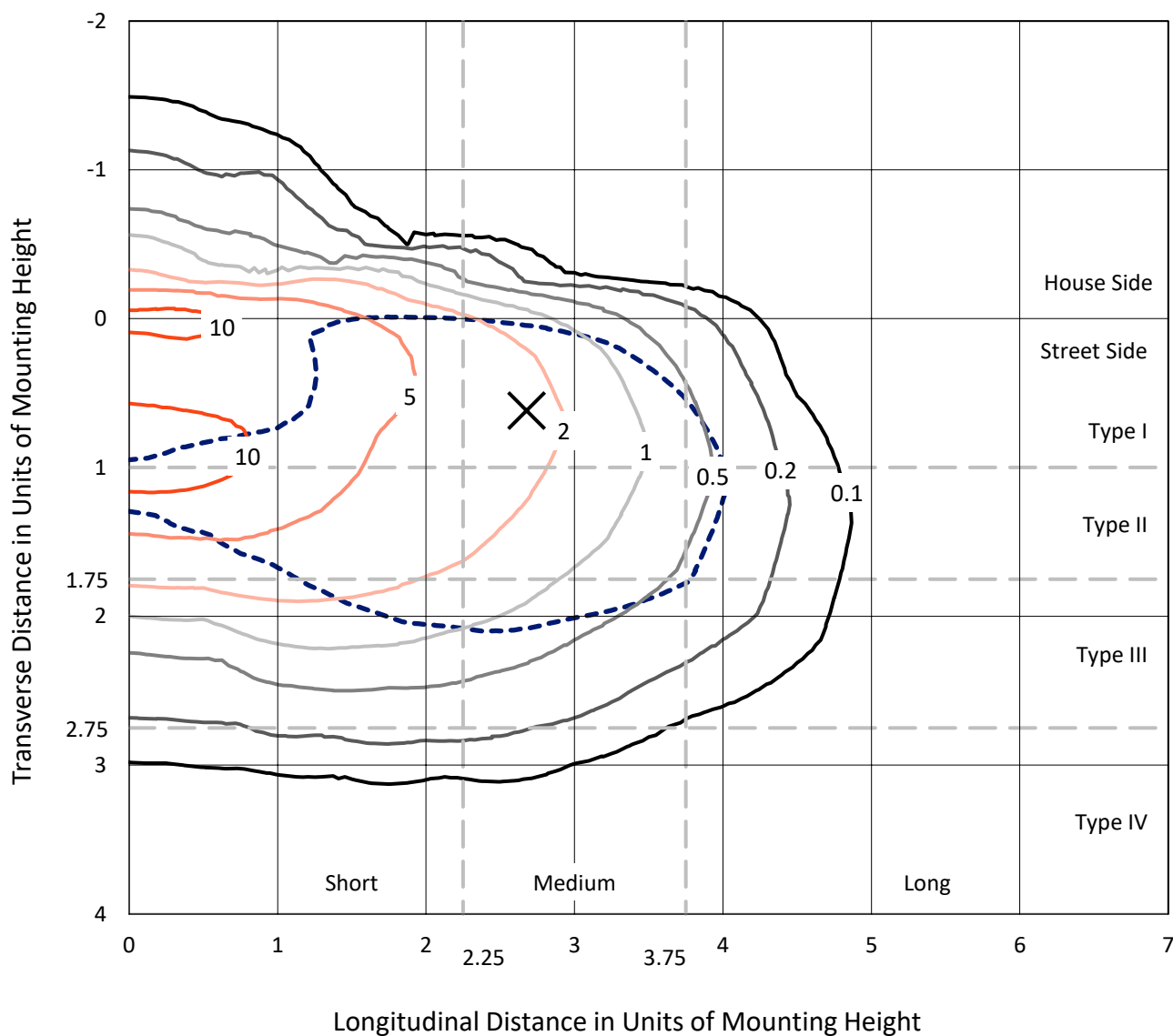


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Iso-Footcandle Lines of Horizontal Illumination

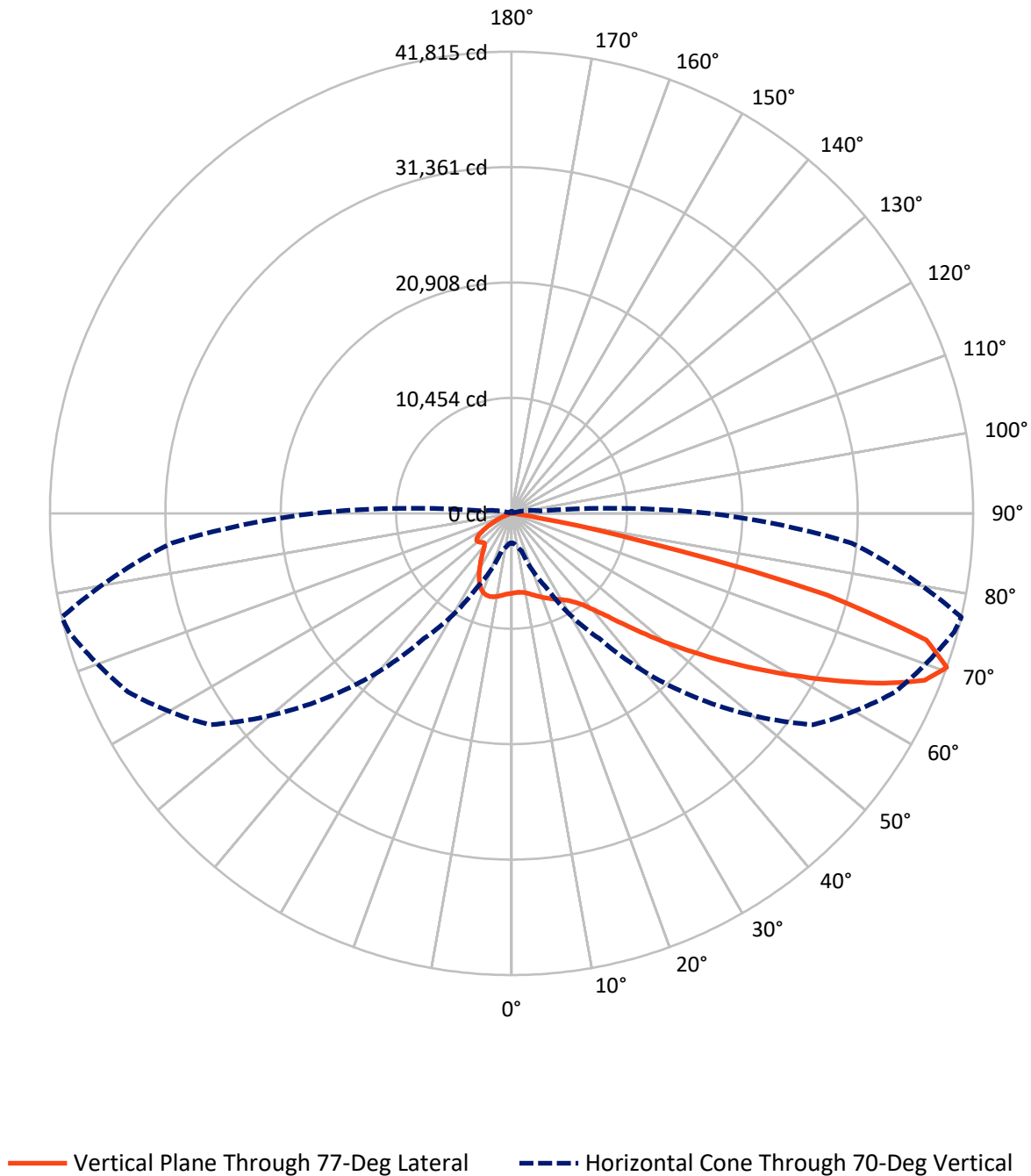
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.6 fc
Type III - Medium - N/A

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Luminous Intensity Polar Plot



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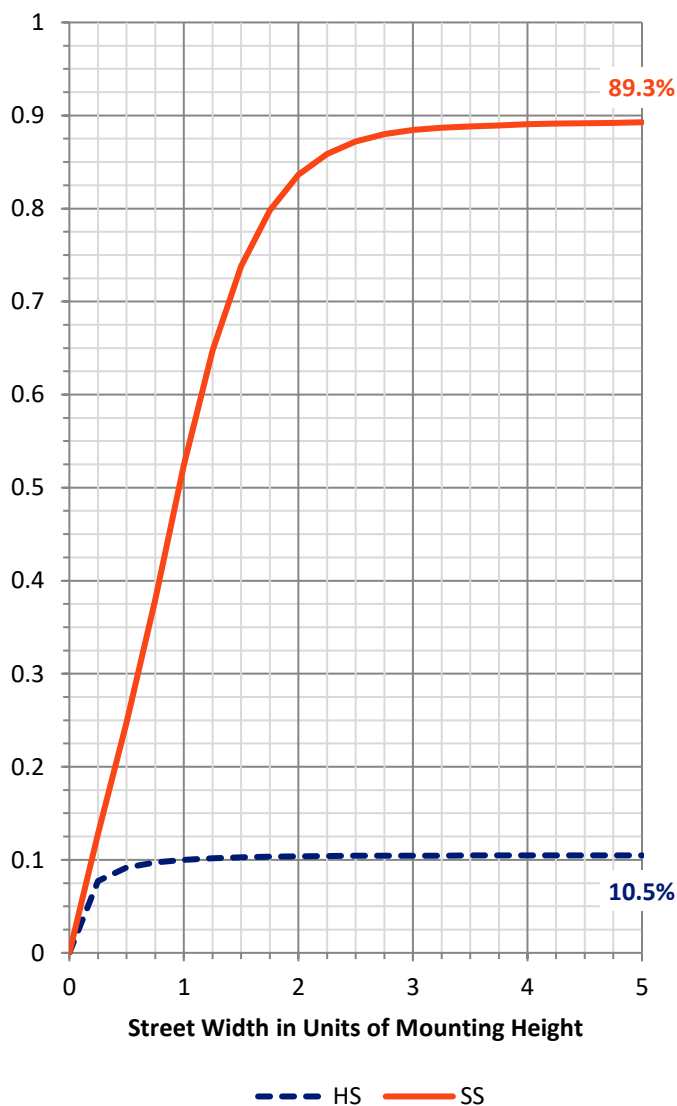
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4892.0	0.0	4892.0
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	41515.8	0.0	41515.8
	% Fixture	89.5	0.0	89.5
Total	Lumens	46407.9	0.0	46407.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	623.9	1.3
10°-20°	1481.0	3.2
20°-30°	2290.7	4.9
30°-40°	4156.6	9.0
40°-50°	7846.0	16.9
50°-60°	11336.9	24.4
60°-70°	12067.8	26.0
70°-80°	6395.1	13.8
80°-90°	210.0	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°	46407.9	100.0
0°-180°	46407.9	100.0

Coefficient of Utilization



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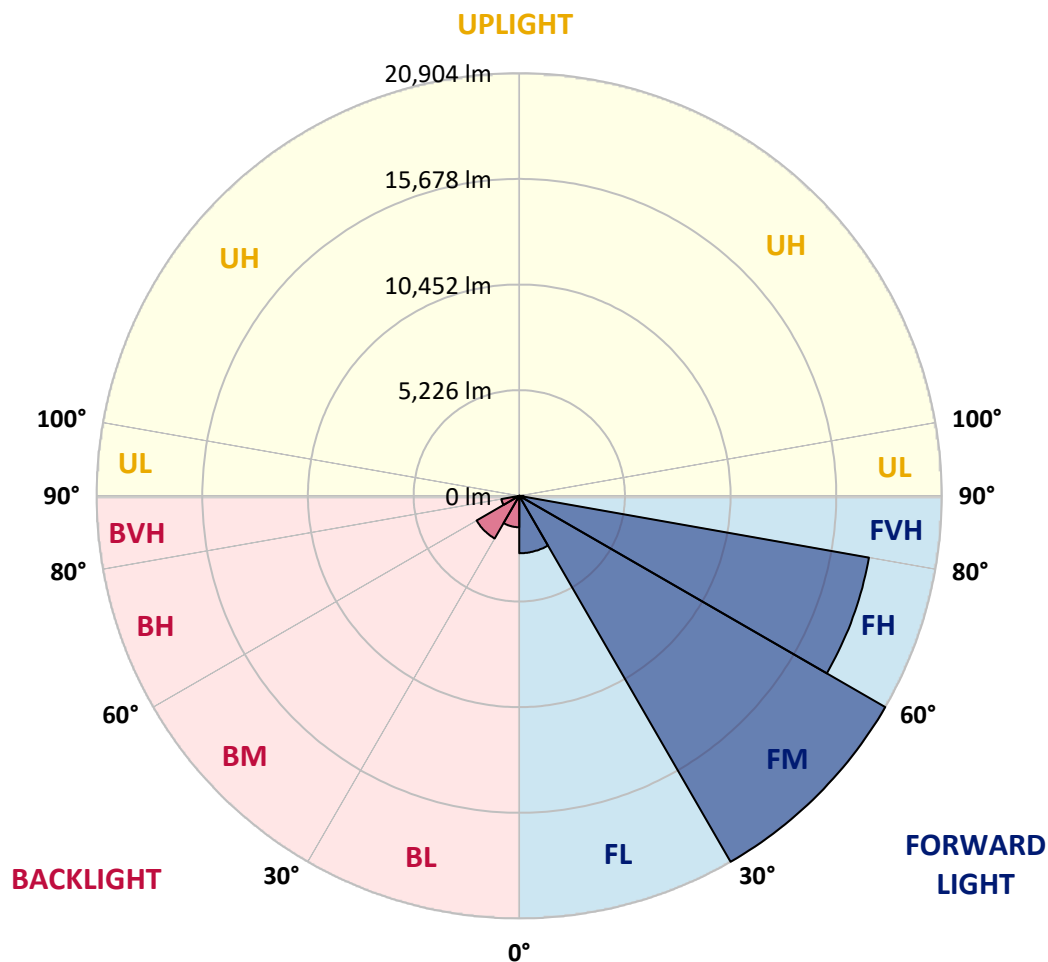
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2841.3	6.1			
FM	(30°-60°)	20904.2	45.0			
FH	(60°-80°)	17566.1	37.9			G5
FVH	(80°-90°)	204.3	0.4			G2/225
BL	(0°-30°)	1554.3	3.3	B3/2500		
BM	(30°-60°)	2435.3	5.2	B2/2500		
BH	(60°-80°)	896.8	1.9	B2/1000		G2/1000
BVH	(80°-90°)	5.6	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type III Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77°	85°
0°	7238.8	7238.8	7238.8	7238.8	7238.8	7238.8	7238.8	7238.8	7238.8	7238.8	7238.8
2.5°	6796.3	6857.8	6849.0	6890.0	6904.7	6963.3	7022.0	7101.1	7188.9	7186.1	7244.7
5°	6412.3	6473.9	6488.6	6544.2	6614.5	6705.4	6825.6	6983.8	7147.9	7174.3	7291.5
7.5°	5958.1	6022.6	6060.6	6172.0	6301.0	6488.6	6684.8	6916.4	7188.9	7227.1	7452.8
10°	5503.8	5562.5	5612.3	5770.5	5975.6	6254.0	6573.5	6907.6	7273.9	7329.7	7649.1
12.5°	5222.5	5278.1	5333.9	5471.6	5726.6	6066.6	6500.2	6948.7	7414.6	7493.8	7915.8
15°	5122.8	5172.7	5216.6	5339.7	5577.1	5964.0	6485.6	7033.7	7593.4	7698.9	8238.1
17.5°	5137.5	5163.8	5193.2	5287.0	5518.5	5917.0	6512.0	7180.2	7804.5	7898.2	8560.5
20°	5222.5	5237.1	5240.1	5304.6	5509.7	5911.2	6564.7	7320.9	8003.7	8129.7	8880.0
22.5°	5330.9	5336.8	5330.9	5374.9	5565.3	5955.1	6635.0	7490.8	8226.4	8343.7	9202.3
25°	5837.9	5726.6	5585.8	5500.9	5659.1	6040.1	6740.6	7719.4	8469.7	8584.0	9515.9
27.5°	7411.7	7092.3	6588.2	6022.6	5852.5	6163.2	6887.1	7950.9	8715.9	8818.5	9852.9
30°	9967.3	9548.2	8692.4	7417.5	6473.9	6421.1	7077.6	8182.5	8976.6	9088.1	10213.4
32.5°	12528.7	12426.1	11438.5	9674.2	7871.8	6995.5	7394.1	8496.0	9322.5	9410.4	10700.0
35°	15119.4	14911.3	14102.5	12358.7	10025.8	8164.8	7921.6	8906.3	9776.8	9876.4	11409.2
37.5°	17103.5	16977.5	16476.4	15040.2	12581.5	9970.2	8824.3	9542.3	10436.1	10547.6	12317.6
40°	18856.0	18797.4	18627.4	17680.8	15438.9	12332.3	10228.1	10527.1	11350.5	11482.5	13431.3
42.5°	20233.5	20371.2	20467.9	20204.2	18384.2	15028.6	12115.5	11910.3	12625.4	12760.2	14849.8
45°	21643.1	21690.0	22079.8	22460.8	21309.0	17847.9	14243.1	13531.0	14210.9	14378.0	16549.5
47.5°	22548.7	22736.2	23422.1	24093.1	23767.9	20643.7	16529.0	15444.7	16048.4	16362.0	18454.5
50°	22616.1	22970.8	23914.4	25083.7	25558.5	23304.8	19014.3	17625.2	18266.9	18612.8	20488.4
52.5°	21493.6	22044.6	23507.0	25218.6	26525.7	25558.5	21584.6	19805.6	20629.0	21080.5	22598.5
55°	16479.2	17200.2	21974.3	24485.9	26563.7	27267.2	24087.3	22076.9	23260.8	23770.8	24878.6
57.5°	14357.4	14720.8	17276.4	23214.0	25857.5	27955.8	26349.8	24239.7	26124.2	26757.1	27032.6
60°	11945.5	12423.2	14489.3	21133.1	24899.1	28023.2	28348.5	27029.8	29227.8	29939.8	29007.9
62.5°	8118.0	8636.8	10691.2	17557.7	23589.0	27991.0	29986.8	29901.8	32677.1	33442.1	30681.3
65°	5029.1	5354.4	6708.3	14336.9	21757.4	28026.2	31701.2	33389.3	36317.1	37093.7	31976.7
67.5°	3974.0	4123.5	4829.8	11007.7	18601.1	27234.9	33412.7	36668.8	39743.0	40358.5	32372.4
70°	2669.8	2760.7	3513.9	7379.5	13838.7	23583.2	33380.6	38315.8	41507.3	41815.0	30930.5
72.5°	1406.7	1477.0	2054.4	3417.1	8358.4	16763.6	28137.5	36346.4	39751.9	39288.8	26437.7
75°	703.4	820.6	1383.2	1734.9	3569.6	9348.9	17472.8	28656.2	31288.0	29494.4	16962.8
77.5°	533.4	644.7	1143.0	1143.0	1242.6	3147.6	7400.0	15629.3	14416.0	12004.1	4979.2
80°	340.0	439.6	999.4	864.6	518.8	800.1	1928.4	4378.5	3062.6	2329.9	905.6
82.5°	199.3	287.2	832.3	571.4	290.2	296.0	545.1	931.9	794.2	618.4	278.4
85°	79.1	187.6	571.4	225.7	114.3	73.3	164.1	199.3	164.1	123.1	70.3
87.5°	0.0	44.0	99.6	0.0	8.8	5.8	11.7	14.7	14.7	11.7	23.5
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°	7238.8	7238.8	7238.8	7238.8	7238.8	7238.8	7238.8	7238.8	7238.8	7238.8	7238.8
2.5°	7271.0	7276.9	7294.5	7297.4	7256.4	7203.6	7183.1	7174.3	7139.1	7136.3	7142.1
5°	7359.0	7385.3	7359.0	7282.7	7101.1	6846.1	6652.7	6494.4	6350.8	6306.8	6280.5
7.5°	7534.8	7561.2	7482.1	7183.1	6725.9	6218.9	5761.7	5439.4	5149.2	5040.7	4996.8
10°	7786.8	7822.0	7572.9	6969.2	6160.4	5345.6	4571.9	4026.7	3601.8	3428.9	3355.6
12.5°	8103.3	8118.0	7622.7	6643.8	5424.7	4261.2	3165.1	2582.0	2203.9	2063.2	2019.2
15°	8452.0	8431.5	7628.6	6201.4	4422.4	3012.8	2066.1	1696.9	1544.5	1497.6	1497.6
17.5°	8818.5	8733.4	7511.3	5562.5	3323.4	2060.2	1532.8	1444.8	1418.5	1406.7	1403.8
20°	9178.9	8988.4	7297.4	4727.2	2385.6	1538.6	1392.1	1365.7	1351.1	1345.2	1339.4
22.5°	9507.2	9181.8	6931.0	3757.1	1732.0	1359.9	1315.9	1292.4	1266.1	1254.3	1251.4
25°	9826.6	9293.2	6415.3	2851.5	1386.2	1271.9	1236.8	1192.8	1157.6	1143.0	1137.1
27.5°	10137.2	9363.6	5770.5	2110.1	1236.8	1189.8	1125.3	1063.8	1037.5	1031.6	1025.7
30°	10468.4	9386.9	5037.9	1573.8	1145.8	1087.3	993.5	923.1	908.6	911.4	911.4
32.5°	10872.9	9422.1	4299.4	1289.6	1069.7	964.2	852.8	779.5	767.8	779.5	776.6
35°	11356.4	9492.5	3587.2	1186.9	1002.2	838.1	718.0	656.5	644.7	653.5	650.6
37.5°	12012.9	9606.8	2921.9	1166.4	946.6	732.7	603.7	553.9	553.9	556.8	553.9
40°	12886.2	9911.5	2327.0	1151.8	917.3	653.5	509.9	489.4	498.3	504.1	504.1
42.5°	13950.0	10559.2	1925.5	1134.2	885.1	618.4	463.1	454.3	468.9	474.8	474.8
45°	15142.8	11379.9	1784.8	1104.8	855.8	641.9	442.5	430.8	448.4	451.3	454.3
47.5°	16376.6	12182.8	1767.2	1072.7	826.5	677.0	436.6	410.3	430.8	433.8	436.6
50°	17625.2	12707.4	1784.8	1022.8	779.5	677.0	439.6	389.8	407.3	416.2	419.1
52.5°	18882.4	12947.8	1773.0	914.4	697.5	635.9	439.6	372.2	389.8	395.6	395.6
55°	20101.6	12900.9	1594.3	753.2	592.0	562.7	427.8	357.5	369.3	372.2	372.2
57.5°	21065.8	12247.3	1263.1	586.1	480.6	468.9	389.8	340.0	348.7	345.8	345.8
60°	21569.9	10811.3	902.6	451.3	378.0	369.3	342.9	316.5	322.4	307.7	304.8
62.5°	21575.7	8912.2	603.7	357.5	301.9	293.0	293.0	284.2	278.4	249.1	240.4
65°	21115.6	6805.1	401.5	284.2	243.2	228.6	246.2	243.2	222.7	181.7	175.9
67.5°	20072.3	4460.5	304.8	222.7	187.6	178.8	196.4	205.1	190.4	152.4	149.4
70°	17927.0	2596.6	252.0	172.9	140.6	131.9	158.3	175.9	158.3	123.1	117.3
72.5°	14890.8	1400.9	205.1	128.9	96.8	87.9	126.0	143.6	126.0	90.8	87.9
75°	9662.5	750.3	158.3	85.0	49.8	55.7	93.8	105.5	87.9	58.6	52.8
77.5°	3244.2	331.2	99.6	41.0	23.5	23.5	55.7	64.5	41.0	20.5	17.6
80°	723.9	137.8	41.0	17.6	8.8	8.8	11.7	11.7	5.8	0.0	0.0
82.5°	237.4	55.7	17.6	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	90.8	20.5	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	35.2	3.0	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)