

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: P966710

Luminaire Tested: **NAV-SB4C-740-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966710
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-740-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32984.5 lumens
Efficiency: N/A
Efficacy: 164.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G4

Input Watts (W): 200.7
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

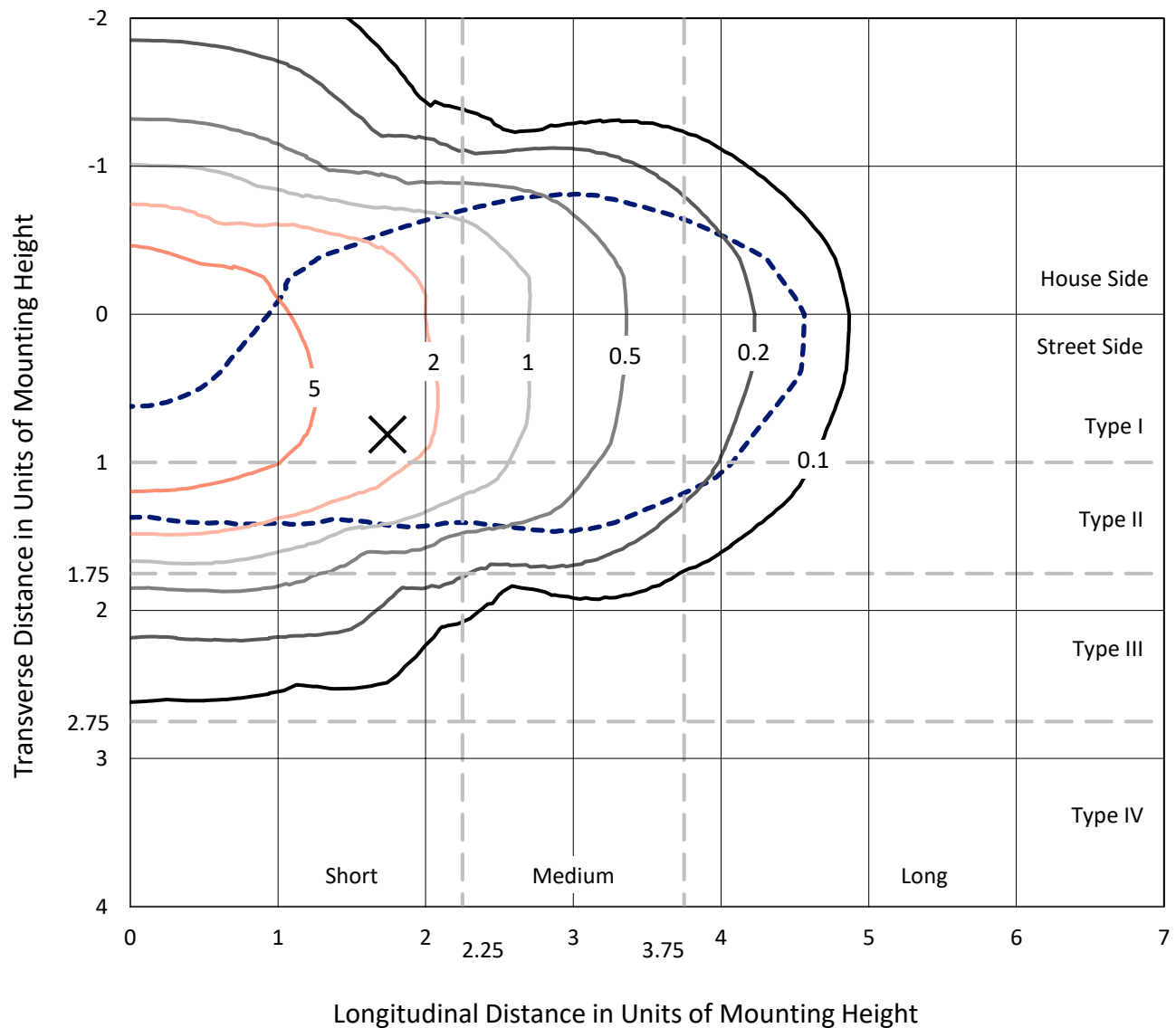


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Iso-Footcandle Lines of Horizontal Illumination

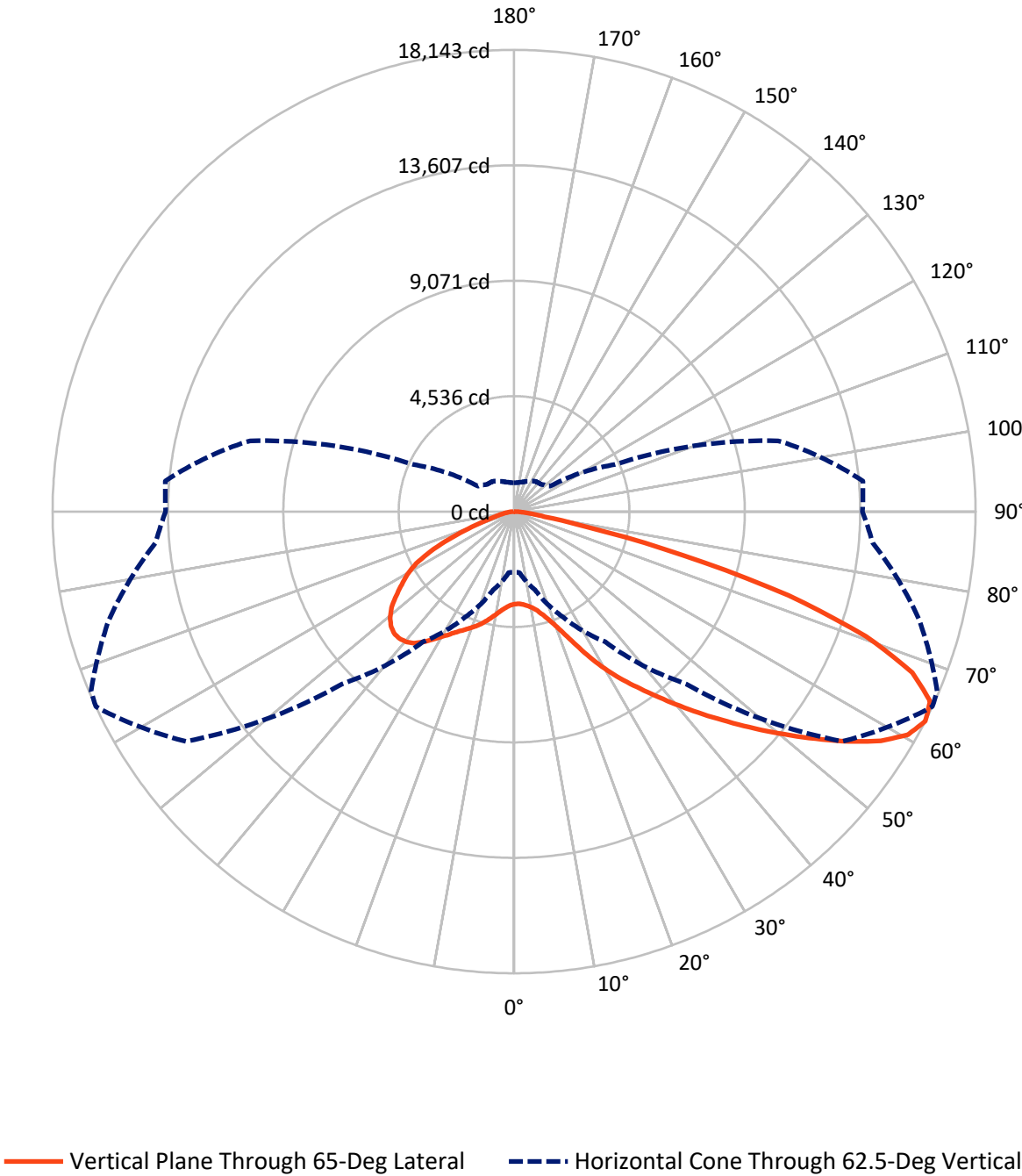
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.2 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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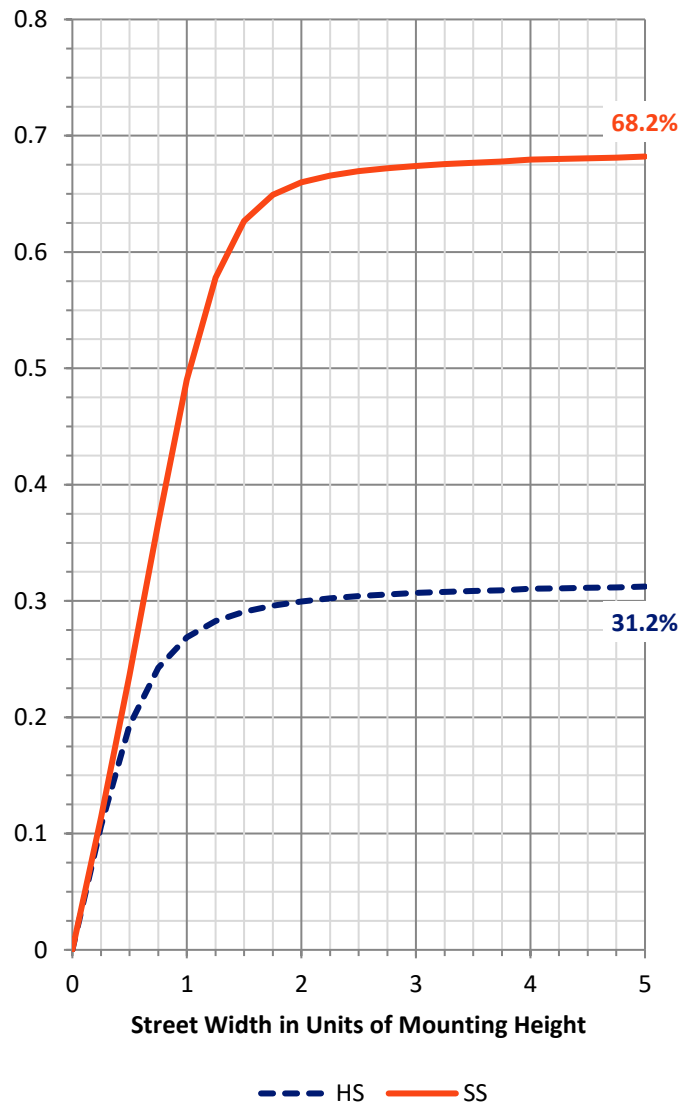
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10408.5	0.0	10408.5
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	22576.0	0.0	22576.0
	% Fixture	68.4	0.0	68.4
Total	Lumens	32984.5	0.0	32984.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	362.4	1.1
10°-20°	1228.9	3.7
20°-30°	2491.7	7.6
30°-40°	4311.8	13.1
40°-50°	6525.0	19.8
50°-60°	7650.2	23.2
60°-70°	6413.8	19.4
70°-80°	3540.9	10.7
80°-90°	459.9	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°	32984.5	100.0
0°-180°	32984.5	100.0

Coefficient of Utilization



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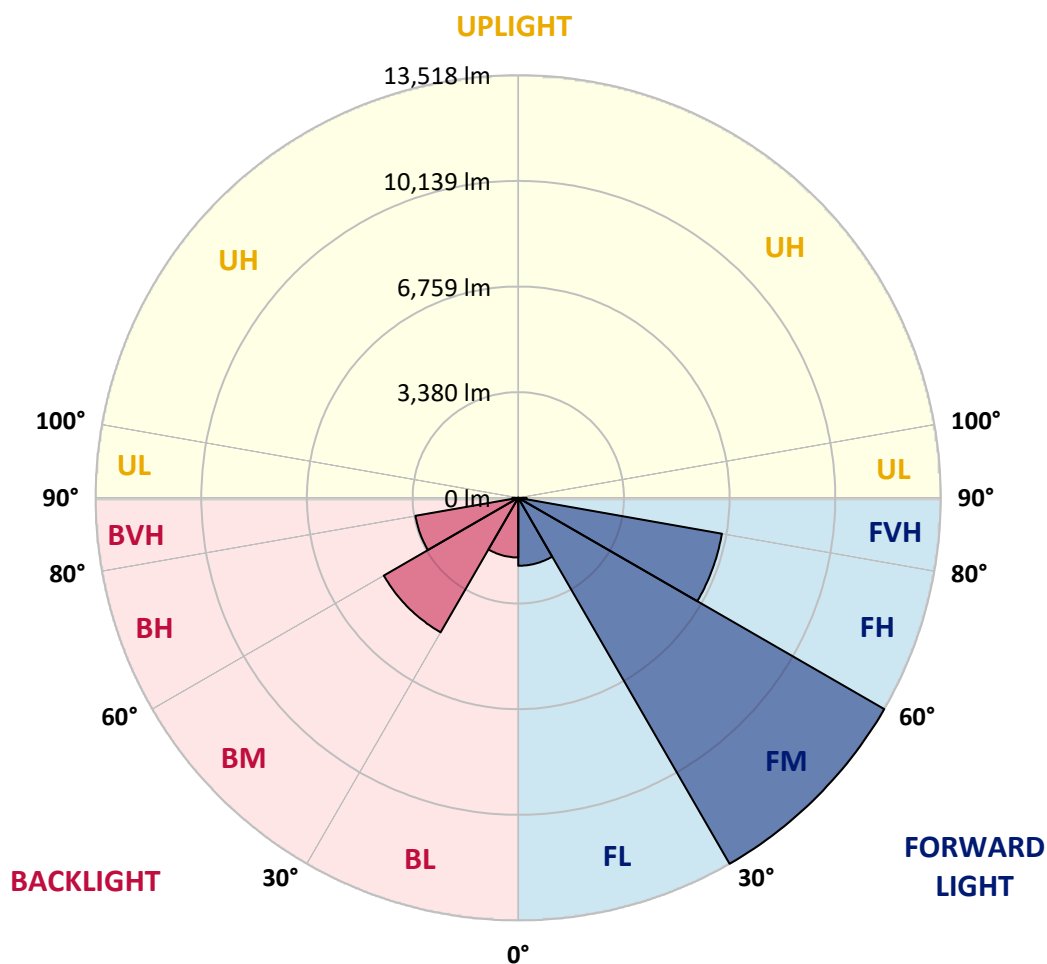
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2174.1	6.6			
FM	(30°-60°)	13518.1	41.0			
FH	(60°-80°)	6615.7	20.1			G3/7500
FVH	(80°-90°)	268.1	0.8			G3/500
BL	(0°-30°)	1908.8	5.8	B3/2500		
BM	(30°-60°)	4968.9	15.1	B3/5000		
BH	(60°-80°)	3339.0	10.1	B4/5000		G4/5000
BVH	(80°-90°)	191.9	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	3634.8	3634.8	3634.8	3634.8	3634.8	3634.8	3634.8	3634.8	3634.8	3634.8	3634.8
2.5°	3610.8	3600.5	3609.1	3609.1	3612.5	3610.8	3622.8	3626.1	3631.4	3641.6	3641.6
5°	3574.9	3573.2	3588.5	3602.3	3615.9	3627.9	3643.3	3665.5	3669.0	3681.0	3696.4
7.5°	3562.9	3552.6	3576.5	3593.6	3626.1	3655.3	3696.4	3734.0	3749.4	3754.6	3783.6
10°	3655.3	3638.1	3660.4	3670.7	3698.1	3727.2	3775.1	3834.9	3852.1	3872.7	3905.1
12.5°	3812.7	3793.9	3826.4	3841.8	3867.5	3893.2	3925.6	3983.9	3992.4	4030.1	4060.8
15°	4028.4	4006.1	4026.6	4045.5	4088.2	4112.2	4144.7	4201.2	4201.2	4230.3	4252.5
17.5°	4321.0	4291.9	4307.3	4314.1	4341.5	4377.5	4432.2	4481.8	4507.5	4497.2	4466.4
20°	4757.3	4721.5	4721.5	4687.2	4676.9	4706.0	4777.8	4846.3	4873.7	4820.7	4745.3
22.5°	5412.7	5361.5	5332.4	5215.9	5169.8	5173.2	5245.0	5328.9	5351.1	5257.0	5087.6
25°	6246.1	6165.7	6126.3	5955.2	5850.8	5760.2	5816.7	5924.4	5955.2	5838.9	5565.0
27.5°	7079.6	7084.7	7047.1	6841.7	6668.9	6502.8	6473.8	6586.6	6619.2	6487.4	6148.6
30°	8248.4	8126.8	8055.0	7808.6	7562.1	7329.4	7209.6	7255.8	7264.4	7106.9	6713.3
32.5°	9256.3	9225.5	9071.5	8855.9	8539.3	8174.8	7974.5	7901.0	7887.3	7663.1	7195.9
35°	10404.6	10387.5	10224.9	9968.2	9625.9	9119.4	8758.3	8547.8	8530.7	8215.8	7673.4
37.5°	11571.6	11571.6	11412.5	11131.8	10777.6	10144.4	9595.1	9261.4	9206.7	8795.9	8159.4
40°	12502.5	12446.1	12475.2	12357.1	11951.5	11279.0	10524.4	10040.1	9966.5	9473.7	8676.2
42.5°	13031.3	13012.6	13187.1	13318.8	13152.9	12615.5	11547.6	10883.8	10781.1	10219.8	9271.7
45°	13149.4	13128.9	13440.3	13923.0	14155.7	13934.9	12660.0	11771.8	11647.0	11000.1	9910.0
47.5°	12877.4	12836.3	13293.2	14054.7	14800.8	15189.3	13864.8	12735.3	12553.9	11759.9	10565.4
50°	12059.3	12020.0	12711.3	13722.7	15018.2	16041.5	15172.2	13756.9	13479.7	12574.5	11227.6
52.5°	10281.4	10300.1	11383.4	12772.9	14732.3	16572.0	16298.2	14833.3	14499.6	13407.8	11848.9
55°	8008.7	8049.8	9381.2	10911.1	13589.2	16491.5	17066.6	15942.2	15610.2	14191.6	12490.6
57.5°	5734.5	5915.9	7163.4	8677.9	11393.7	15216.6	17234.2	16996.3	16674.7	15047.2	13118.7
60°	3716.9	3749.4	5032.9	6559.3	8676.2	12951.0	16893.7	17795.5	17544.0	15920.0	13644.0
62.5°	2382.1	2404.3	3186.4	4587.9	6244.4	9581.4	15747.2	18142.9	18065.9	16496.7	14148.8
65°	1750.6	1733.5	2140.8	3032.4	4206.3	5909.0	13520.8	17975.2	18127.5	16857.8	14566.4
67.5°	1461.4	1437.5	1637.6	2099.7	3099.1	3355.8	10004.1	16885.1	17443.0	16816.7	14872.6
70°	1331.4	1310.9	1432.3	1558.9	2418.1	2246.9	5043.1	14679.3	15538.4	16349.6	14823.0
72.5°	1127.7	1091.8	1257.8	1384.5	1880.7	1723.2	2084.3	11275.6	12322.9	14852.1	14124.9
75°	874.4	850.5	992.5	1218.4	1413.5	1345.1	1317.6	6846.8	7990.0	11486.0	12357.1
77.5°	693.1	660.5	790.6	949.8	1271.5	1014.7	960.0	2948.5	4081.3	7332.8	9246.0
80°	521.9	492.8	600.6	751.2	977.1	765.0	621.2	1203.0	1538.4	3715.2	4649.5
82.5°	371.4	345.6	419.2	551.0	657.1	686.2	381.6	674.2	758.1	1432.3	1038.7
85°	237.9	222.4	280.6	345.6	417.6	441.5	232.8	352.5	386.7	590.4	433.0
87.5°	130.1	106.1	150.6	160.8	193.4	176.3	111.2	128.3	138.6	213.9	183.1
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°	3634.8	3634.8	3634.8	3634.8	3634.8	3634.8	3634.8	3634.8	3634.8	3634.8	3634.8
2.5°	3648.5	3653.6	3670.7	3675.9	3687.8	3703.2	3713.5	3723.7	3723.7	3734.0	3734.0
5°	3698.1	3710.1	3746.0	3764.8	3795.6	3826.4	3845.2	3867.5	3881.2	3888.0	3891.4
7.5°	3793.9	3812.7	3864.0	3896.5	3949.6	3992.4	4021.5	4052.3	4059.1	4078.0	4071.1
10°	3923.9	3946.2	4004.4	4066.0	4129.3	4182.3	4209.8	4232.0	4240.5	4244.0	4235.4
12.5°	4072.8	4105.3	4180.7	4255.9	4322.7	4368.9	4375.7	4370.6	4346.6	4326.1	4326.1
15°	4255.9	4285.0	4368.9	4451.1	4516.0	4524.7	4481.8	4454.4	4425.3	4420.2	4420.2
17.5°	4474.9	4490.4	4567.4	4647.9	4653.0	4623.9	4560.5	4534.9	4507.5	4488.7	4490.4
20°	4730.0	4724.8	4779.6	4813.8	4777.8	4688.9	4593.0	4550.3	4522.9	4500.7	4502.4
22.5°	5034.6	4995.2	4988.4	4979.9	4884.0	4697.5	4567.4	4512.7	4469.8	4439.1	4449.3
25°	5477.8	5327.2	5222.8	5164.7	4949.0	4651.2	4485.3	4363.7	4283.4	4230.3	4250.8
27.5°	6032.2	5779.0	5515.4	5373.4	4949.0	4557.2	4286.8	4090.0	3958.1	3903.4	3930.8
30°	6561.0	6295.8	5907.3	5625.0	4937.0	4403.1	3966.7	3693.0	3538.9	3484.2	3516.7
32.5°	7012.8	6723.6	6323.1	5900.5	4907.9	4153.3	3569.8	3266.8	3117.9	3053.0	3085.5
35°	7432.1	7124.1	6740.7	6203.4	4830.9	3787.1	3133.3	2902.3	2736.3	2631.9	2666.1
37.5°	7861.6	7495.4	7136.0	6477.2	4692.3	3359.2	2797.9	2601.1	2406.1	2265.8	2303.4
40°	8328.7	7890.7	7558.7	6639.7	4464.7	2952.0	2537.8	2358.1	2151.1	2002.2	2031.2
42.5°	8874.7	8364.7	8029.3	6723.6	4153.3	2662.7	2368.4	2192.2	1997.0	1875.5	1899.5
45°	9444.6	8886.6	8458.8	6721.8	3805.9	2527.5	2313.6	2139.1	1923.5	1796.8	1817.3
47.5°	10041.7	9432.6	8830.2	6612.4	3504.7	2546.4	2282.9	2024.5	1786.6	1663.4	1680.5
50°	10640.7	10029.8	9189.5	6407.0	3376.4	2505.3	2168.2	1863.6	1582.9	1471.7	1478.6
52.5°	11234.5	10664.7	9499.3	6114.4	3246.3	2353.0	2021.0	1654.8	1499.1	1422.1	1422.1
55°	11831.8	11292.7	9836.4	5688.2	2921.1	2175.0	1774.6	1576.0	1432.3	1362.2	1355.4
57.5°	12430.7	12018.3	10156.4	5262.1	2512.2	1956.0	1639.4	1480.2	1365.6	1305.7	1295.4
60°	13053.6	12848.3	10486.7	4870.3	2108.3	1675.4	1540.2	1403.2	1286.9	1220.2	1215.0
62.5°	13695.3	13762.1	10745.1	4365.5	1737.0	1504.2	1451.2	1310.9	1197.9	1134.6	1132.8
65°	14342.2	14643.4	10914.5	3665.5	1408.4	1341.6	1355.4	1209.9	1095.2	1040.5	1038.7
67.5°	14829.9	15278.2	10866.6	2774.0	1155.1	1187.7	1235.5	1103.8	996.0	953.1	954.9
70°	14884.6	15203.0	10394.3	1899.5	966.9	1037.0	1102.1	999.4	888.2	857.3	859.1
72.5°	14155.7	14176.2	9078.3	1240.7	817.9	910.4	961.8	893.3	785.5	754.7	753.0
75°	12244.1	11723.9	6665.4	817.9	684.5	782.1	829.9	782.1	677.6	684.5	660.5
77.5°	9276.9	8303.1	4047.2	581.8	571.5	657.1	722.1	688.0	598.9	672.5	592.1
80°	4779.6	4492.1	1805.4	434.7	451.8	525.3	593.8	549.3	474.1	451.8	412.5
82.5°	1095.2	1273.2	711.9	311.5	326.9	378.2	453.5	412.5	340.5	287.5	284.0
85°	383.3	419.2	314.9	195.1	191.7	236.2	308.0	275.5	231.0	184.8	195.1
87.5°	121.5	159.2	118.1	78.7	82.1	106.1	142.1	130.1	107.8	70.2	73.6
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)