

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: P884840

Luminaire Tested: **NAV-SB5D-830-U-T4FT-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884840
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-830-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34209 lumens
Efficiency: N/A
Efficacy: 93.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

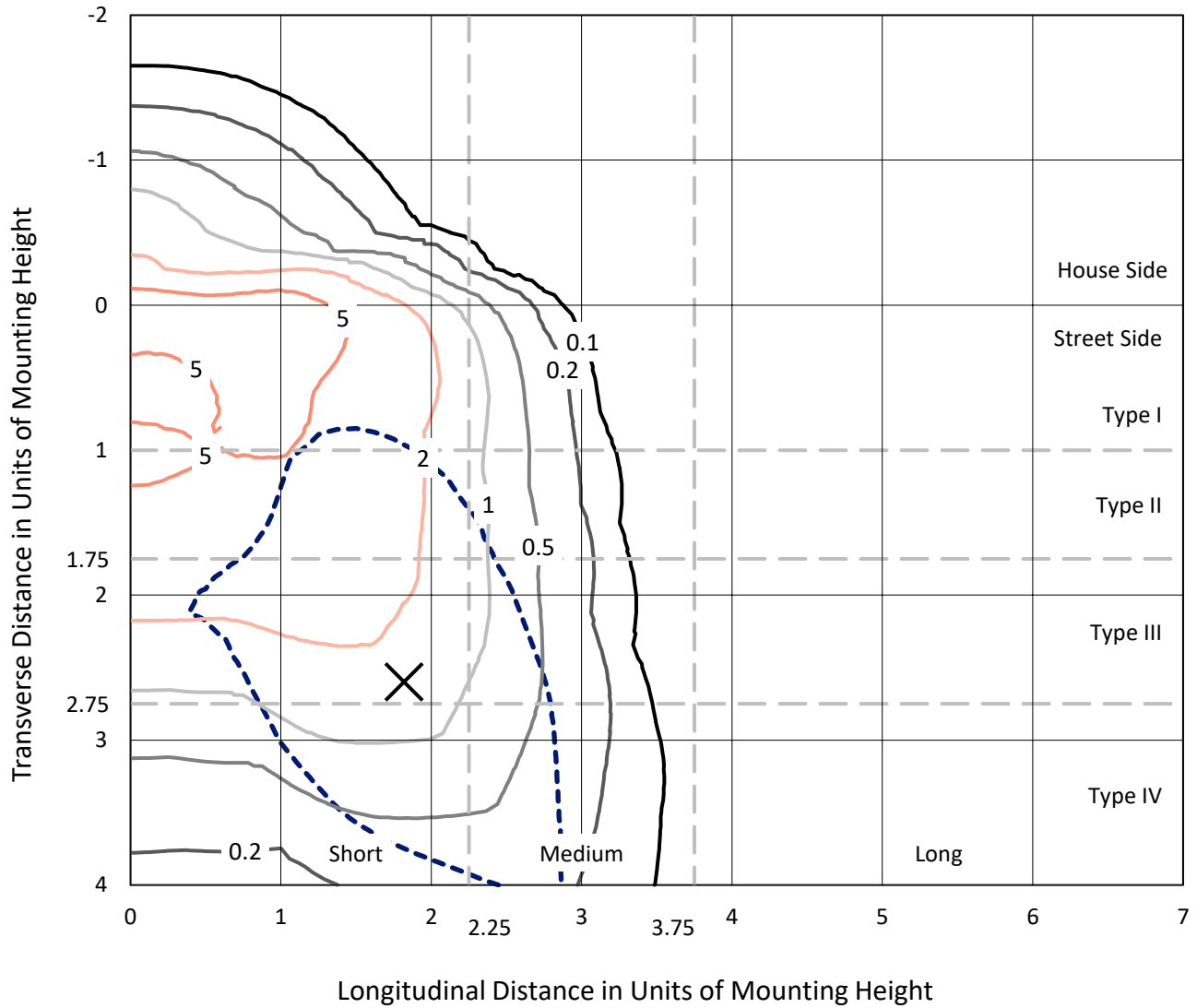
Input Watts (W): 364.9
Input Voltage (V): 120.0
Input Current (Ain): 3.094
Voltage Rise (V): NR
Power Factor: 0.998
Total Harmonic Distortion (THDi): 3.28
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

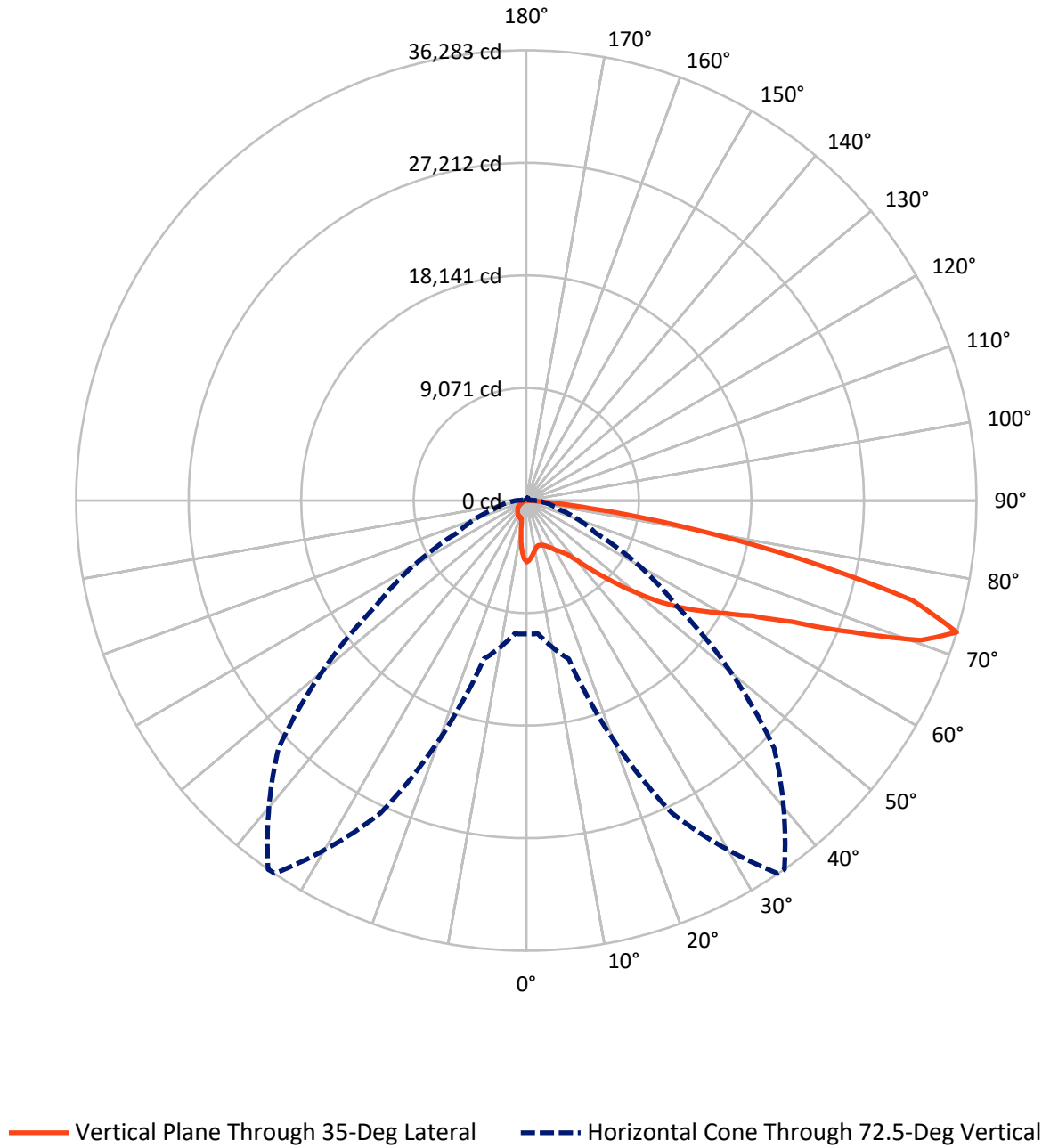
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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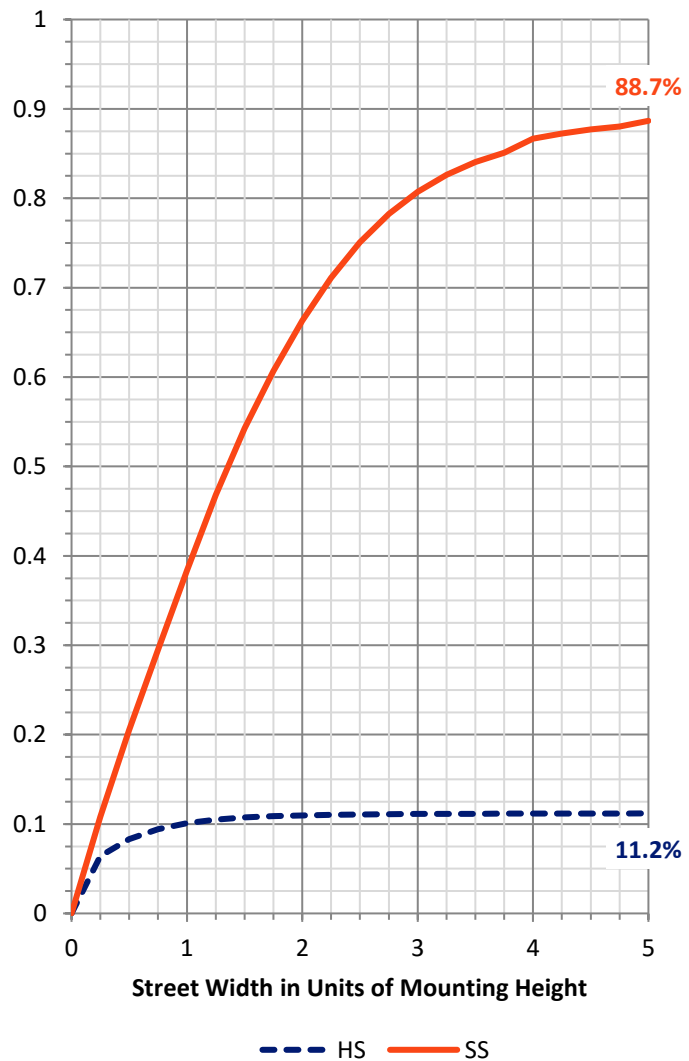
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3850.1	0.0	3850.1
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	30358.9	0.0	30358.9
	% Fixture	88.7	0.0	88.7
Total	Lumens	34209.0	0.0	34209.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	407.4	1.2
10°-20°	953.1	2.8
20°-30°	1548.3	4.5
30°-40°	2583.3	7.6
40°-50°	4887.7	14.3
50°-60°	7766.5	22.7
60°-70°	9607.7	28.1
70°-80°	5972.2	17.5
80°-90°	482.6	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°	34209.0	100.0
0°-180°	34209.0	100.0

Coefficient of Utilization



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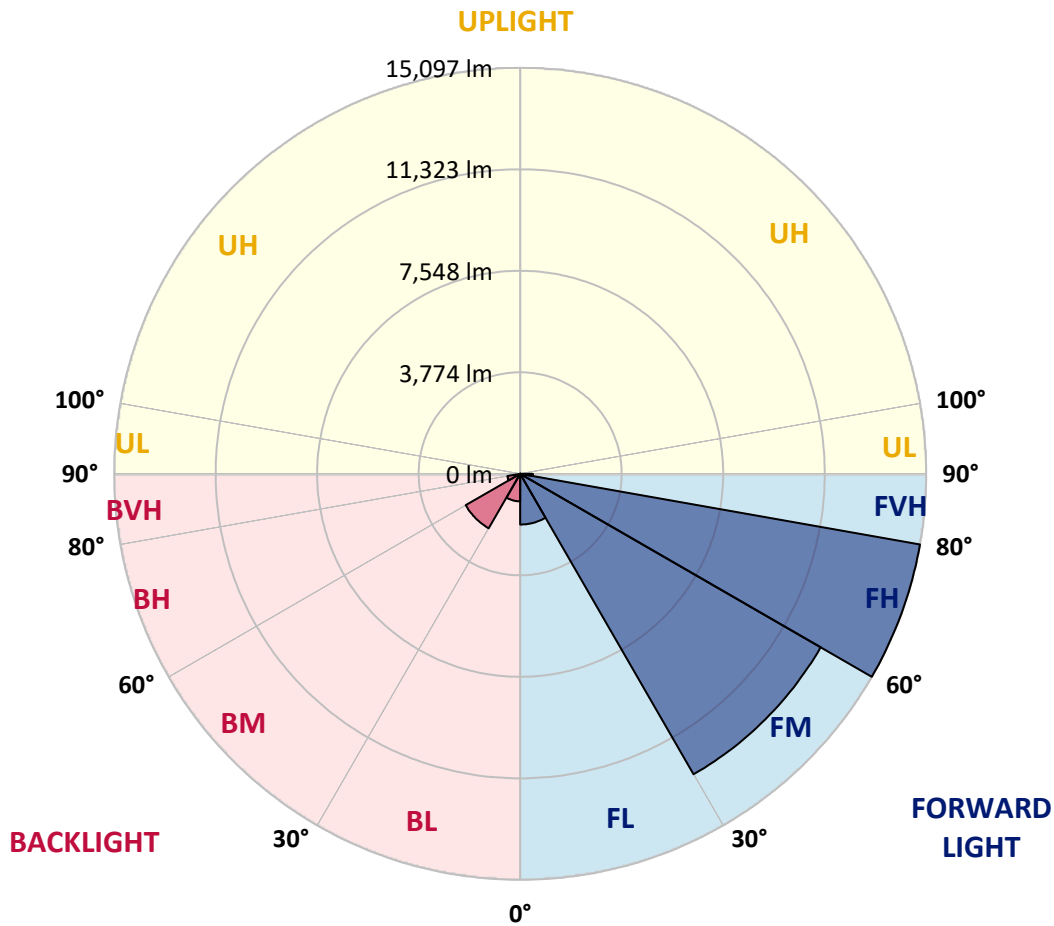
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1885.8	5.5			
FM (30°-60°)	12900.2	37.7			
FH (60°-80°)	15096.9	44.1			G5
FVH (80°-90°)	476.1	1.4			G3/500
BL (0°-30°)	1023.0	3.0	B3/2500		
BM (30°-60°)	2337.3	6.8	B2/2500		
BH (60°-80°)	483.1	1.4	B1/500		G1/500
BVH (80°-90°)	6.6	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 IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	4958.0	4958.0	4958.0	4958.0	4958.0	4958.0	4958.0	4958.0	4958.0	4958.0	4958.0
2.5°	4737.5	4777.6	4785.1	4797.6	4797.6	4812.6	4837.7	4872.8	4930.5	4960.5	4980.6
5°	4366.5	4396.6	4434.2	4464.2	4521.9	4529.4	4627.2	4722.4	4855.3	4955.5	5025.7
7.5°	3993.0	4028.1	4078.2	4150.9	4226.1	4248.7	4396.6	4557.0	4767.5	4955.5	5073.3
10°	3729.8	3732.3	3777.4	3850.1	3970.4	3998.0	4178.5	4406.6	4669.8	4925.4	5118.5
12.5°	3581.9	3599.5	3619.5	3674.7	3790.0	3807.5	4000.5	4268.7	4572.0	4907.9	5171.1
15°	3581.9	3594.4	3607.0	3634.6	3727.3	3742.3	3912.8	4181.0	4521.9	4915.4	5256.3
17.5°	3619.5	3639.6	3629.5	3662.1	3759.9	3769.9	3920.3	4155.9	4519.4	4963.0	5386.7
20°	3709.8	3724.8	3704.7	3724.8	3822.5	3842.6	3998.0	4203.5	4562.0	5045.8	5549.6
22.5°	3852.6	3860.1	3812.5	3827.6	3927.8	3952.9	4133.4	4338.9	4664.8	5178.6	5767.7
25°	4033.1	4048.1	3975.4	3993.0	4088.2	4118.3	4326.4	4541.9	4827.7	5361.6	6045.9
27.5°	4241.1	4248.7	4186.0	4183.5	4306.3	4348.9	4559.5	4792.6	5045.8	5592.2	6396.8
30°	4479.3	4501.8	4441.7	4431.6	4587.1	4622.1	4830.2	5100.9	5366.6	5938.1	6895.6
32.5°	4667.3	4684.8	4649.7	4674.8	4832.7	4860.3	5158.6	5537.1	5870.4	6429.4	7574.9
35°	4938.0	4948.0	4867.8	4912.9	5093.4	5163.6	5607.2	6148.7	6504.6	7046.0	8462.2
37.5°	5918.1	5918.1	5577.2	5354.1	5527.0	5589.7	6221.4	6918.2	7286.7	7873.2	9580.2
40°	7274.1	7251.6	6752.7	6296.5	6274.0	6396.8	7096.2	7888.2	8296.8	8865.8	10838.5
42.5°	8720.4	8685.3	8006.0	7554.9	7479.7	7522.3	8106.3	9083.9	9500.0	10076.5	12192.0
45°	10003.8	9993.8	9372.1	8765.5	8630.2	8765.5	9367.1	10482.6	10780.8	11387.4	13543.1
47.5°	11079.1	11079.1	10625.4	10229.4	10159.2	10239.4	11074.1	12034.1	12006.6	12783.6	14859.1
50°	12317.4	12307.3	11876.2	11705.8	11778.5	11891.3	13039.3	13668.4	13274.9	14154.7	16034.6
52.5°	13184.7	13244.8	13096.9	13069.3	13440.3	13635.8	15034.5	15267.6	14410.4	15455.6	16914.5
55°	13871.5	13941.6	14112.1	14305.1	15019.5	15275.1	16967.1	16784.1	15360.4	16583.6	17420.8
57.5°	14844.0	14743.8	15006.9	15387.9	16543.5	16851.8	18839.5	18215.4	16124.9	17498.5	17475.9
60°	16024.6	16039.7	16084.8	16566.0	18065.0	18461.0	20684.4	19568.9	16616.2	18060.0	16864.3
62.5°	17443.3	17465.9	17558.6	18298.1	20107.8	20481.3	22649.5	20676.8	16841.8	17902.1	15285.2
65°	17345.6	17440.8	18476.1	21005.2	23213.5	23582.0	24943.1	21453.9	16500.9	16458.3	12445.2
67.5°	15801.5	15956.9	17689.0	24238.7	27895.8	28306.9	27715.3	21606.8	15029.5	12798.6	8118.8
70°	13776.2	13831.4	15914.3	27146.3	33317.6	33733.7	30196.9	19924.9	11405.0	7138.8	3637.1
72.5°	10758.3	10770.8	13214.7	27820.6	36260.3	36282.9	28249.2	14791.4	6133.6	2742.2	1263.3
75°	7685.2	7610.0	8850.8	22561.8	31901.3	32157.0	21178.2	6938.2	2343.7	1295.9	629.2
77.5°	4120.8	4203.5	5008.2	13380.2	22037.9	22474.1	11555.4	2000.3	1193.1	882.3	416.1
80°	1273.3	1343.5	2052.9	6126.1	12482.8	12746.0	4283.8	889.8	832.2	629.2	273.2
82.5°	401.1	416.1	957.5	2574.3	5181.1	5301.4	1240.8	503.8	569.0	416.1	160.4
85°	115.3	117.8	426.1	960.0	1280.9	1305.9	348.4	195.5	325.9	258.2	82.7
87.5°	12.5	40.1	160.4	160.4	112.8	110.3	37.6	42.6	92.7	32.6	15.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4958.0	4958.0	4958.0	4958.0	4958.0	4958.0	4958.0	4958.0	4958.0	4958.0	4958.0
2.5°	4968.1	4970.6	4938.0	4882.8	4822.7	4772.5	4709.9	4659.7	4624.7	4614.6	4632.2
5°	5003.1	4985.6	4892.9	4724.9	4524.4	4351.4	4158.4	4005.5	3905.3	3862.7	3877.7
7.5°	5055.8	5005.7	4802.6	4471.8	4088.2	3747.3	3401.4	3133.2	2962.8	2877.6	2890.1
10°	5100.9	5000.6	4652.2	4105.8	3519.2	3002.9	2536.7	2213.3	2032.8	1947.6	1950.1
12.5°	5143.5	4998.1	4456.7	3672.2	2877.6	2245.9	1812.3	1651.8	1601.7	1584.2	1579.2
15°	5223.7	5005.7	4211.1	3175.8	2238.4	1697.0	1539.0	1536.5	1546.6	1541.6	1539.0
17.5°	5334.0	5013.2	3932.8	2649.5	1727.0	1496.4	1488.9	1511.5	1526.5	1519.0	1516.5
20°	5476.9	5043.3	3637.1	2128.1	1483.9	1446.3	1463.8	1483.9	1496.4	1483.9	1481.4
22.5°	5677.4	5095.9	3313.7	1709.5	1406.2	1416.2	1431.3	1453.8	1466.4	1448.8	1446.3
25°	5923.1	5178.6	2995.4	1486.4	1368.6	1381.1	1403.7	1428.8	1443.8	1426.2	1423.7
27.5°	6241.4	5311.5	2702.1	1436.3	1331.0	1338.5	1371.1	1408.7	1428.8	1406.2	1406.2
30°	6702.6	5529.5	2448.9	1458.8	1308.4	1290.9	1336.0	1388.6	1411.2	1391.2	1388.6
32.5°	7314.2	5837.8	2293.5	1493.9	1298.4	1235.7	1278.4	1346.0	1383.6	1371.1	1371.1
35°	8116.3	6306.6	2233.4	1534.0	1290.9	1178.1	1208.2	1280.9	1346.0	1358.6	1358.6
37.5°	9088.9	6958.3	2250.9	1551.6	1268.3	1130.5	1145.5	1208.2	1293.4	1333.5	1343.5
40°	10194.3	7717.8	2351.2	1534.0	1243.3	1090.4	1092.9	1140.5	1215.7	1275.9	1295.9
42.5°	11334.8	8605.1	2536.7	1468.9	1220.7	1055.3	1047.8	1080.3	1130.5	1173.1	1190.6
45°	12420.1	9517.5	2719.6	1378.6	1193.1	1020.2	1002.6	1015.2	1025.2	1042.7	1052.8
47.5°	13367.6	10159.2	2667.0	1295.9	1155.5	980.1	950.0	945.0	914.9	912.4	909.9
50°	14021.9	10299.6	2368.7	1213.2	1100.4	935.0	887.3	857.3	804.6	779.5	782.1
52.5°	14229.9	9745.6	1935.1	1130.5	1010.2	874.8	807.1	759.5	694.3	671.8	669.3
55°	13954.2	8660.3	1546.6	1030.2	884.8	794.6	719.4	656.7	604.1	576.5	576.5
57.5°	13279.9	7279.1	1223.2	912.4	752.0	704.4	629.2	566.5	521.4	493.8	488.8
60°	12162.0	5780.2	967.5	772.0	641.7	606.6	528.9	488.8	448.7	416.1	408.6
62.5°	10465.0	4125.8	759.5	611.6	536.4	496.3	451.2	421.1	373.5	328.4	320.8
65°	8166.5	2524.1	586.5	448.7	431.1	411.1	383.5	355.9	298.3	253.2	245.6
67.5°	5151.0	1195.6	418.6	338.4	340.9	330.9	318.3	295.8	253.2	213.1	208.0
70°	2268.5	579.0	275.7	258.2	253.2	253.2	263.2	255.7	215.6	178.0	170.4
72.5°	772.0	310.8	205.5	195.5	183.0	180.5	220.6	213.1	173.0	137.9	130.3
75°	403.6	208.0	150.4	140.4	110.3	132.8	175.5	165.4	122.8	90.2	82.7
77.5°	263.2	147.9	102.8	90.2	62.7	87.7	130.3	115.3	72.7	45.1	40.1
80°	165.4	97.8	60.2	42.6	30.1	47.6	70.2	50.1	27.6	10.0	7.5
82.5°	87.7	50.1	22.6	15.0	12.5	15.0	17.5	12.5	5.0	0.0	0.0
85°	35.1	17.5	7.5	5.0	2.5	0.0	5.0	2.5	0.0	0.0	0.0
87.5°	12.5	2.5	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)