

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: P969444

Luminaire Tested: **NAV-SB5D-827-U-T4FT-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969444
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-SB5D-827-U-T4FT-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34689.1 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
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



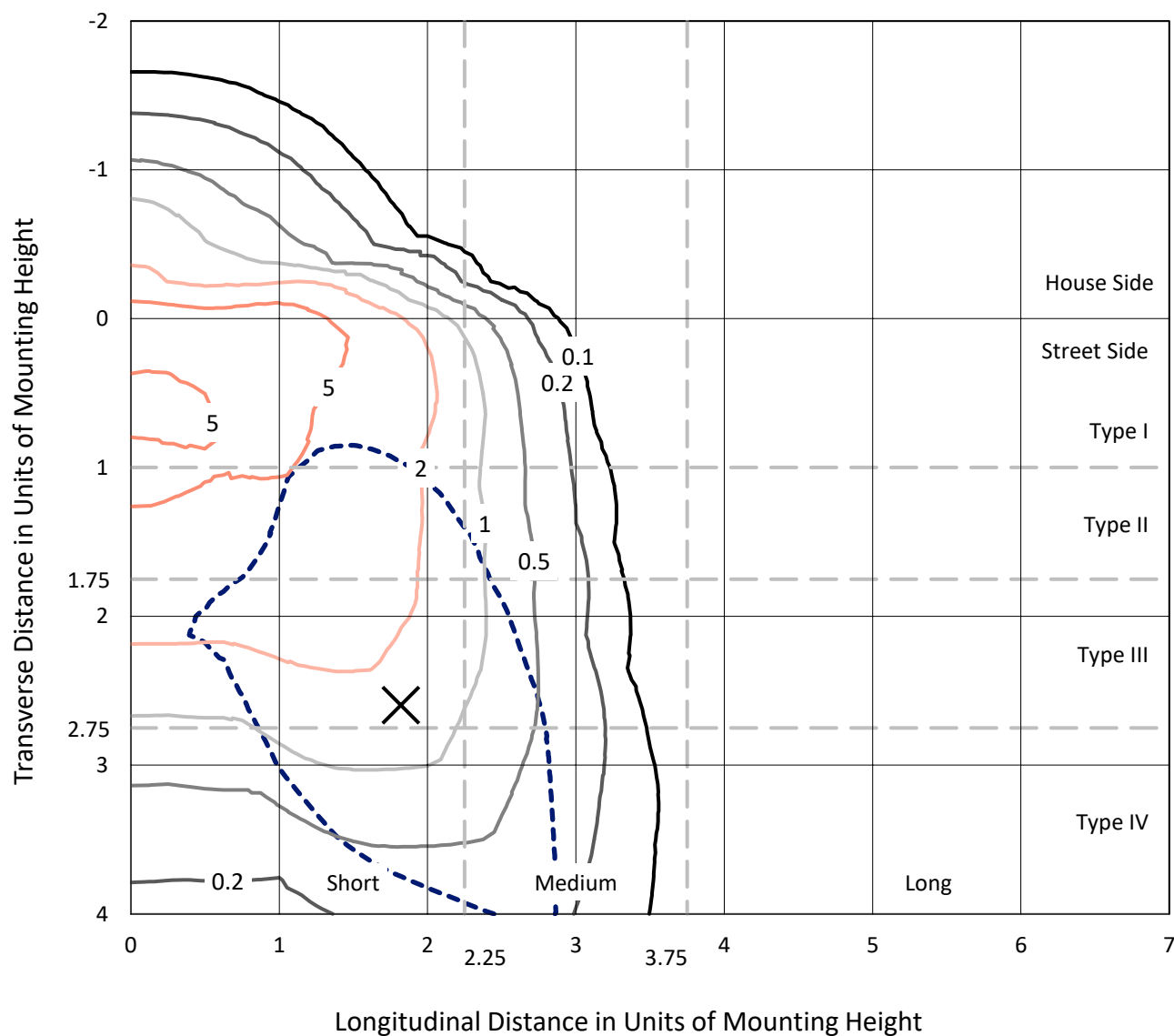
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

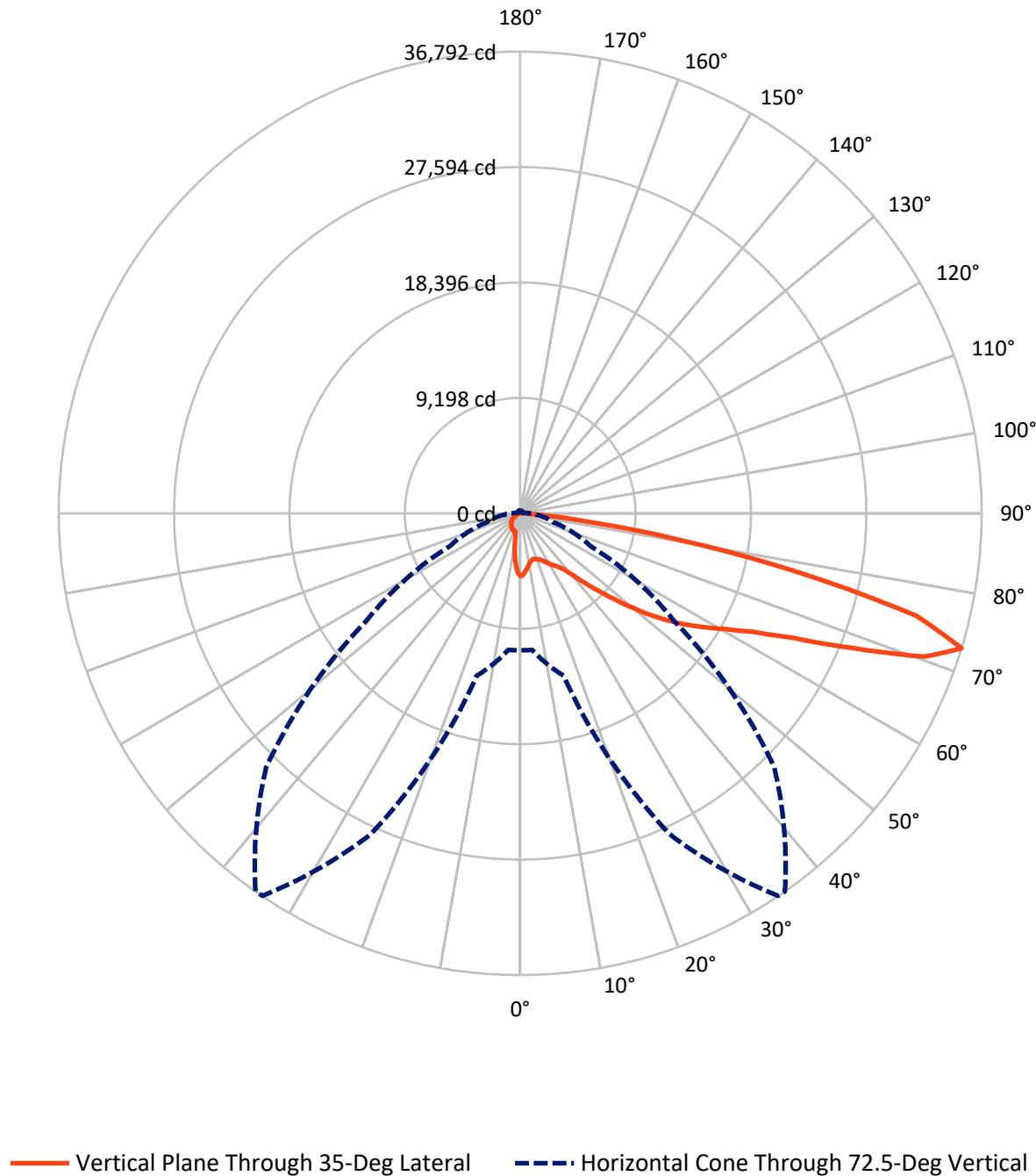


Based on 25 foot mounting height. Maximum calculated value = 8 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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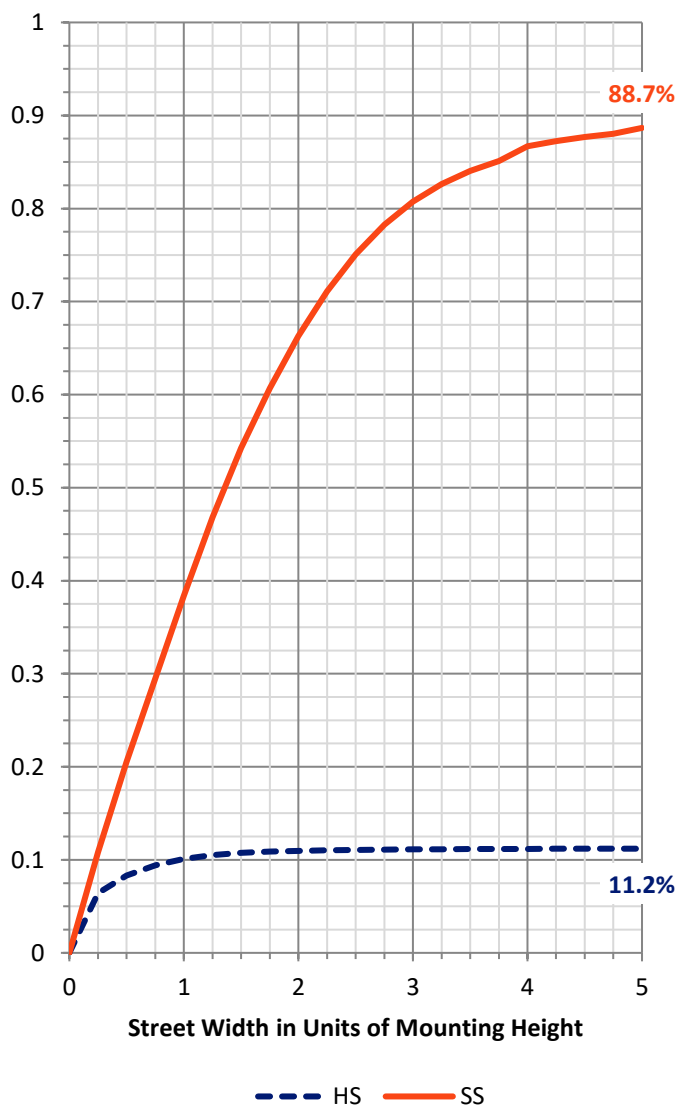
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3904.1	0.0	3904.1
	% Fixture	11.3	0.0	11.3
Street Side	Lumens	30785.0	0.0	30785.0
	% Fixture	88.7	0.0	88.7
Total	Lumens	34689.1	0.0	34689.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	413.1	1.2
10°-20°	966.5	2.8
20°-30°	1570.0	4.5
30°-40°	2619.6	7.6
40°-50°	4956.3	14.3
50°-60°	7875.5	22.7
60°-70°	9742.6	28.1
70°-80°	6056.0	17.5
80°-90°	489.4	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°	34689.1	100.0
0°-180°	34689.1	100.0

Coefficient of Utilization



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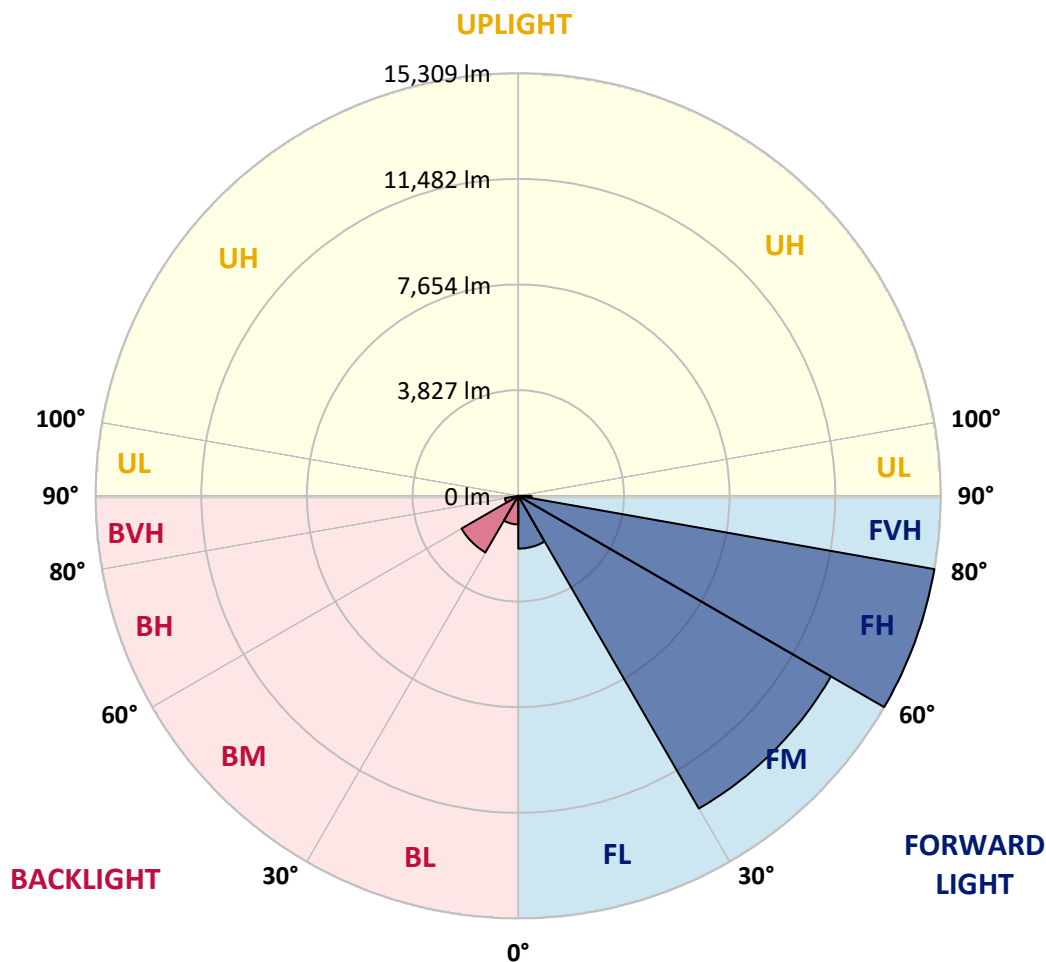
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1912.2	5.5			
FM	(30°-60°)	13081.3	37.7			
FH	(60°-80°)	15308.7	44.1			G5
FVH	(80°-90°)	482.8	1.4			G3/500
BL	(0°-30°)	1037.4	3.0	B3/2500		
BM	(30°-60°)	2370.1	6.8	B2/2500		
BH	(60°-80°)	489.9	1.4	B1/500		G1/500
BVH	(80°-90°)	6.7	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°	5027.6	5027.6	5027.6	5027.6	5027.6	5027.6	5027.6	5027.6	5027.6	5027.6	5027.6
2.5°	4804.0	4844.6	4852.2	4865.0	4865.0	4880.2	4905.6	4941.2	4999.6	5030.2	5050.5
5°	4427.8	4458.2	4496.4	4526.9	4585.3	4592.9	4692.1	4788.7	4923.4	5025.1	5096.2
7.5°	4049.1	4084.6	4135.5	4209.2	4285.4	4308.3	4458.2	4620.9	4834.4	5025.1	5144.6
10°	3782.1	3784.7	3830.4	3904.1	4026.2	4054.1	4237.1	4468.4	4735.3	4994.5	5190.3
12.5°	3632.2	3649.9	3670.3	3726.2	3843.1	3861.0	4056.6	4328.6	4636.2	4976.8	5243.7
15°	3632.2	3644.9	3657.6	3685.6	3779.6	3794.9	3967.7	4239.7	4585.3	4984.4	5330.1
17.5°	3670.3	3690.6	3680.5	3713.5	3812.7	3822.8	3975.4	4214.3	4582.8	5032.6	5462.2
20°	3761.9	3777.0	3756.7	3777.0	3876.1	3896.5	4054.1	4262.6	4626.0	5116.6	5627.5
22.5°	3906.7	3914.3	3866.0	3881.3	3982.9	4008.4	4191.3	4399.8	4730.3	5251.3	5848.6
25°	4089.7	4104.9	4031.2	4049.1	4145.6	4176.2	4387.1	4605.6	4895.4	5436.8	6130.7
27.5°	4300.7	4308.3	4244.7	4242.2	4366.7	4410.0	4623.5	4859.8	5116.6	5670.7	6486.6
30°	4542.1	4565.0	4504.1	4493.8	4651.4	4687.0	4898.0	5172.5	5441.9	6021.5	6992.3
32.5°	4732.7	4750.6	4715.0	4740.4	4900.5	4928.5	5231.0	5614.7	5952.8	6519.6	7681.2
35°	5007.2	5017.5	4936.1	4981.8	5164.9	5236.0	5685.9	6235.0	6595.9	7144.9	8581.0
37.5°	6001.1	6001.1	5655.4	5429.2	5604.6	5668.1	6308.7	7015.3	7388.9	7983.7	9714.6
40°	7376.2	7353.4	6847.5	6384.9	6362.1	6486.6	7195.7	7998.9	8413.2	8990.2	10990.6
42.5°	8842.8	8807.2	8118.4	7660.8	7584.6	7627.8	8220.1	9211.4	9633.3	10217.9	12363.1
45°	10144.2	10134.0	9503.7	8888.6	8751.2	8888.6	9498.6	10629.7	10932.1	11547.2	13733.2
47.5°	11234.6	11234.6	10774.5	10372.9	10301.8	10383.1	11229.5	12203.0	12175.1	12963.0	15067.6
50°	12490.2	12480.1	12042.9	11870.0	11943.7	12058.1	13222.3	13860.3	13461.2	14353.4	16259.7
52.5°	13369.7	13430.7	13280.7	13252.7	13628.9	13827.1	15245.5	15481.9	14612.6	15672.6	17151.8
55°	14066.1	14137.3	14310.1	14505.8	15230.3	15489.5	17205.2	17019.6	15575.9	16816.4	17665.3
57.5°	15052.3	14950.6	15217.6	15603.9	16775.7	17088.3	19103.9	18471.0	16351.2	17744.1	17721.2
60°	16249.5	16264.7	16310.5	16798.5	18318.5	18720.1	20974.7	19843.6	16849.4	18313.4	17101.0
62.5°	17688.1	17711.0	17805.1	18554.9	20390.0	20768.8	22967.4	20967.0	17078.1	18153.3	15499.6
65°	17589.0	17685.6	18735.4	21300.0	23539.3	23912.9	25293.1	21755.0	16732.4	16689.3	12619.9
67.5°	16023.3	16180.9	17937.2	24578.9	28287.3	28704.1	28104.3	21910.0	15240.4	12978.2	8232.8
70°	13969.5	14025.5	16137.7	27527.3	33785.1	34207.0	30620.6	20204.5	11565.1	7239.0	3688.1
72.5°	10909.3	10922.0	13400.1	28211.1	36769.2	36792.1	28645.7	14998.9	6219.7	2780.7	1281.0
75°	7793.1	7716.8	8975.0	22878.4	32349.0	32608.3	21475.4	7035.6	2376.6	1314.0	638.0
77.5°	4178.6	4262.6	5078.5	13567.9	22347.2	22789.4	11717.5	2028.4	1209.9	894.7	421.9
80°	1291.2	1362.4	2081.7	6212.1	12658.0	12924.8	4343.8	902.3	843.9	638.0	277.1
82.5°	406.7	421.9	971.0	2610.4	5253.8	5375.8	1258.2	510.9	577.0	421.9	162.7
85°	117.0	119.4	432.1	973.5	1298.9	1324.3	353.3	198.2	330.5	261.8	83.8
87.5°	12.7	40.7	162.7	162.7	114.4	111.8	38.1	43.3	94.1	33.0	15.3
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°	5027.6	5027.6	5027.6	5027.6	5027.6	5027.6	5027.6	5027.6	5027.6	5027.6	5027.6
2.5°	5037.8	5040.3	5007.2	4951.4	4890.4	4839.5	4776.0	4725.1	4689.6	4679.4	4697.2
5°	5073.3	5055.6	4961.5	4791.3	4587.9	4412.5	4216.7	4061.8	3960.1	3916.8	3932.1
7.5°	5126.7	5075.9	4870.0	4534.5	4145.6	3800.0	3449.1	3177.2	3004.4	2918.0	2930.7
10°	5172.5	5070.8	4717.6	4163.4	3568.6	3045.1	2572.2	2244.3	2061.4	1975.0	1977.5
12.5°	5215.7	5068.3	4519.2	3723.7	2918.0	2277.4	1837.7	1675.1	1624.2	1606.4	1601.4
15°	5297.0	5075.9	4270.2	3220.4	2269.8	1720.8	1560.7	1558.1	1568.2	1563.2	1560.7
17.5°	5408.9	5083.5	3988.1	2686.6	1751.3	1517.4	1509.8	1532.7	1548.0	1540.3	1537.8
20°	5553.8	5114.0	3688.1	2157.9	1504.7	1466.6	1484.4	1504.7	1517.4	1504.7	1502.1
22.5°	5757.1	5167.4	3360.3	1733.5	1426.0	1436.1	1451.3	1474.3	1487.0	1469.1	1466.6
25°	6006.2	5251.3	3037.4	1507.3	1387.8	1400.6	1423.4	1448.8	1464.0	1446.3	1443.7
27.5°	6329.0	5386.0	2740.0	1456.4	1349.7	1357.3	1390.3	1428.4	1448.8	1426.0	1426.0
30°	6796.7	5607.2	2483.3	1479.3	1326.8	1309.0	1354.7	1408.1	1431.0	1410.7	1408.1
32.5°	7416.9	5919.8	2325.7	1514.8	1316.6	1253.1	1296.3	1364.9	1403.0	1390.3	1390.3
35°	8230.2	6395.1	2264.7	1555.5	1309.0	1194.6	1225.1	1298.9	1364.9	1377.6	1377.6
37.5°	9216.4	7055.9	2282.5	1573.4	1286.2	1146.4	1161.6	1225.1	1311.6	1352.2	1362.4
40°	10337.3	7826.1	2384.1	1555.5	1260.8	1105.7	1108.2	1156.5	1232.8	1293.8	1314.0
42.5°	11493.8	8725.9	2572.2	1489.4	1237.8	1070.1	1062.4	1095.5	1146.4	1189.5	1207.3
45°	12594.5	9651.1	2757.9	1398.0	1209.9	1034.5	1016.7	1029.4	1039.6	1057.4	1067.5
47.5°	13555.2	10301.8	2704.5	1314.0	1171.8	993.8	963.3	958.3	927.7	925.2	922.7
50°	14218.6	10444.1	2402.0	1230.2	1115.8	948.1	899.7	869.3	815.9	790.5	793.0
52.5°	14429.6	9882.3	1962.3	1146.4	1024.3	887.0	818.5	770.2	704.1	681.2	678.7
55°	14150.0	8781.8	1568.2	1044.7	897.3	805.8	729.5	665.9	612.5	584.6	584.6
57.5°	13466.2	7381.3	1240.4	925.2	762.5	714.2	638.0	574.4	528.7	500.7	495.7
60°	12332.6	5861.4	981.1	782.9	650.7	615.1	536.3	495.7	455.0	421.9	414.3
62.5°	10611.8	4183.7	770.2	620.2	544.0	503.3	457.6	427.0	378.7	332.9	325.3
65°	8281.1	2559.5	594.8	455.0	437.2	416.9	388.9	360.9	302.5	256.8	249.1
67.5°	5223.3	1212.5	424.5	343.2	345.6	335.5	322.8	299.9	256.8	216.1	210.9
70°	2300.3	587.1	279.6	261.8	256.8	256.8	266.9	259.2	218.6	180.5	172.8
72.5°	782.9	315.2	208.4	198.2	185.5	183.0	223.7	216.1	175.4	139.8	132.1
75°	409.2	210.9	152.5	142.4	111.8	134.7	177.9	167.8	124.5	91.5	83.8
77.5°	266.9	150.0	104.2	91.5	63.6	89.0	132.1	117.0	73.7	45.7	40.7
80°	167.8	99.1	61.0	43.3	30.5	48.3	71.1	50.8	28.0	10.1	7.6
82.5°	89.0	50.8	22.9	15.3	12.7	15.3	17.8	12.7	5.1	0.0	0.0
85°	35.6	17.8	7.6	5.1	2.6	0.0	5.1	2.6	0.0	0.0	0.0
87.5°	12.7	2.6	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)