

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: P969437

Luminaire Tested: **NAV-SB5D-827-U-T2U-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969437
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-827-U-T2U-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35015 lumens
Efficiency: N/A
Efficacy: 96.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G4

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

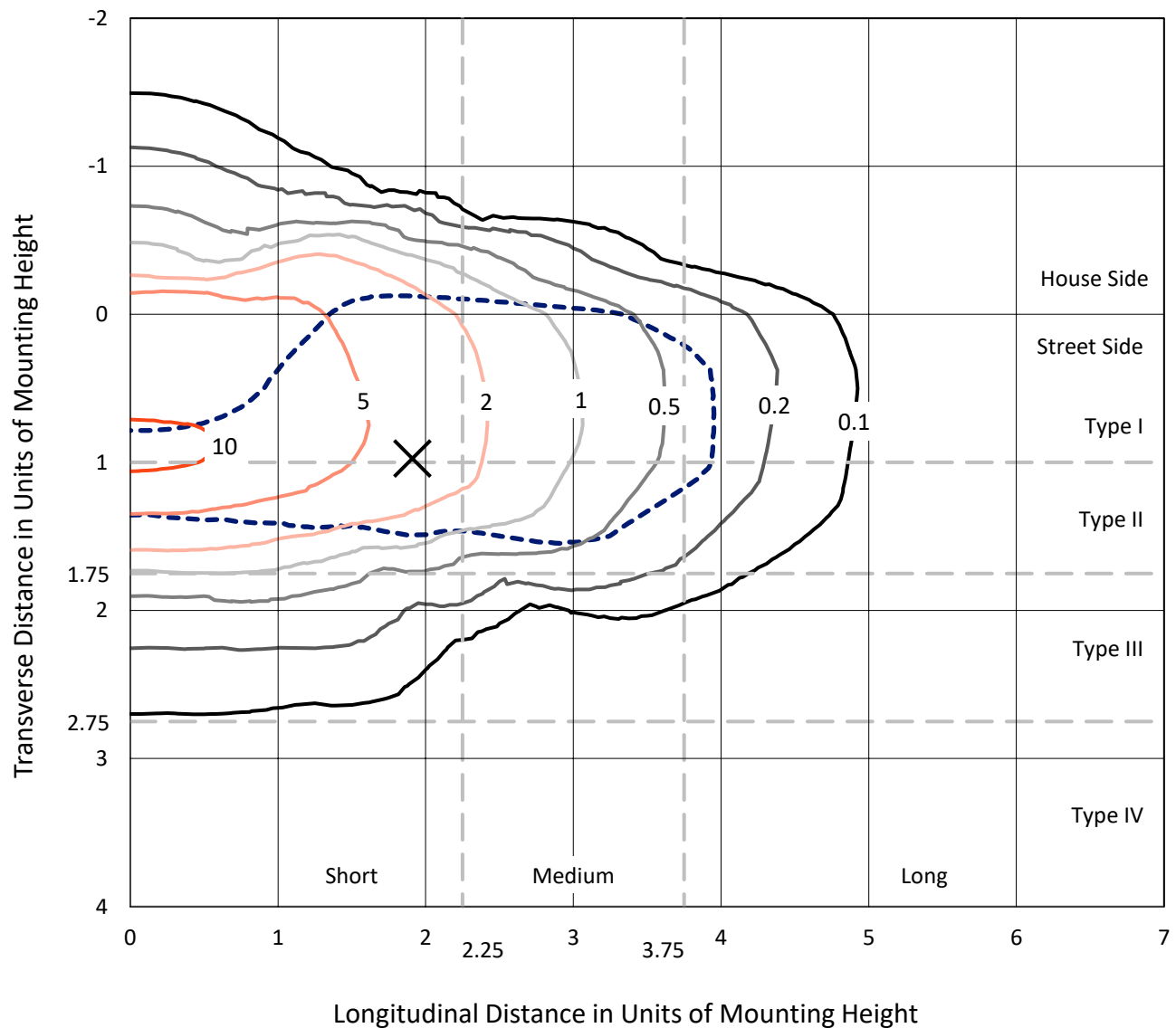


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Iso-Footcandle Lines of Horizontal Illumination

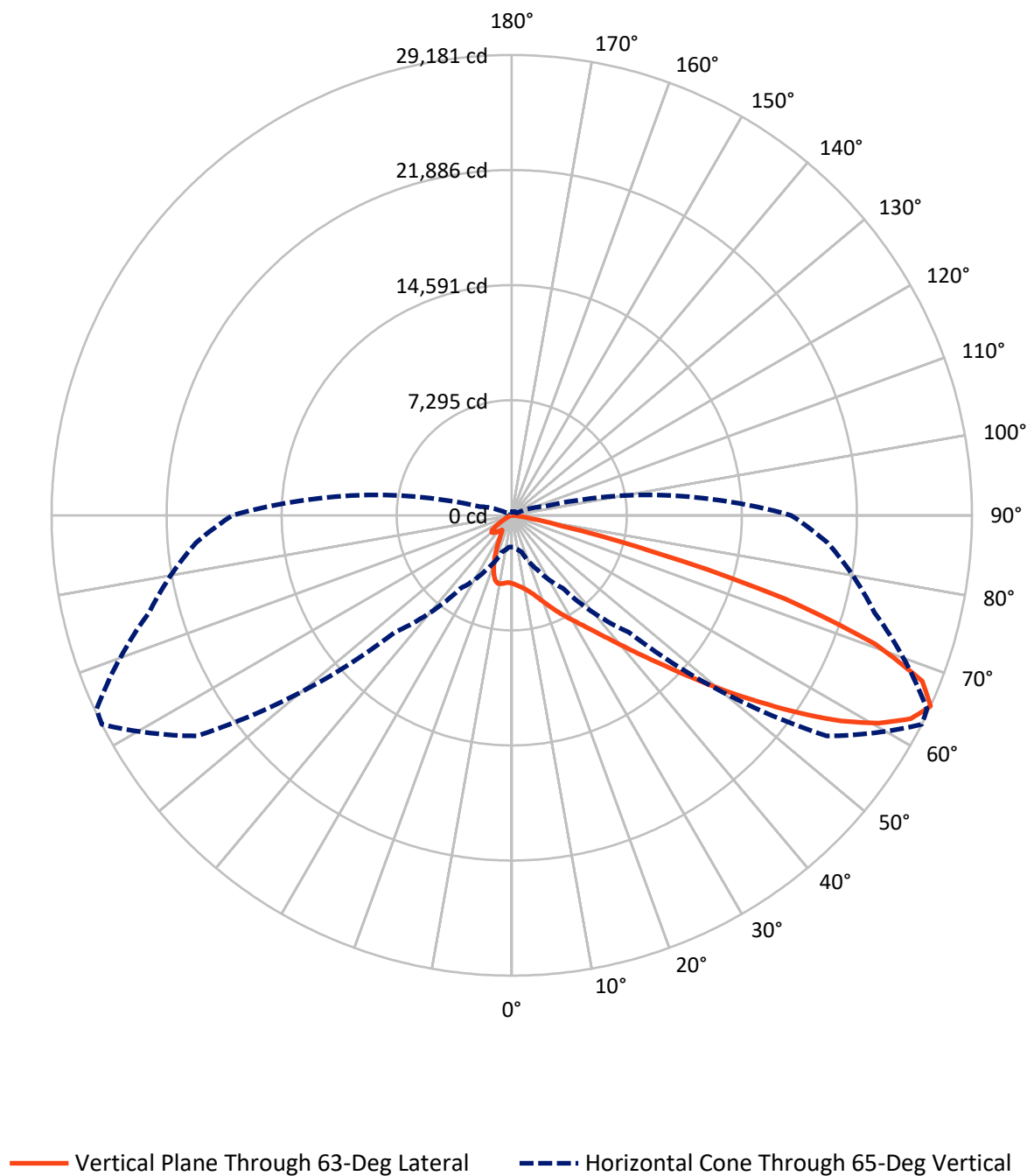
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.8 fc
Type II - Short - N/A

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Luminous Intensity Polar Plot



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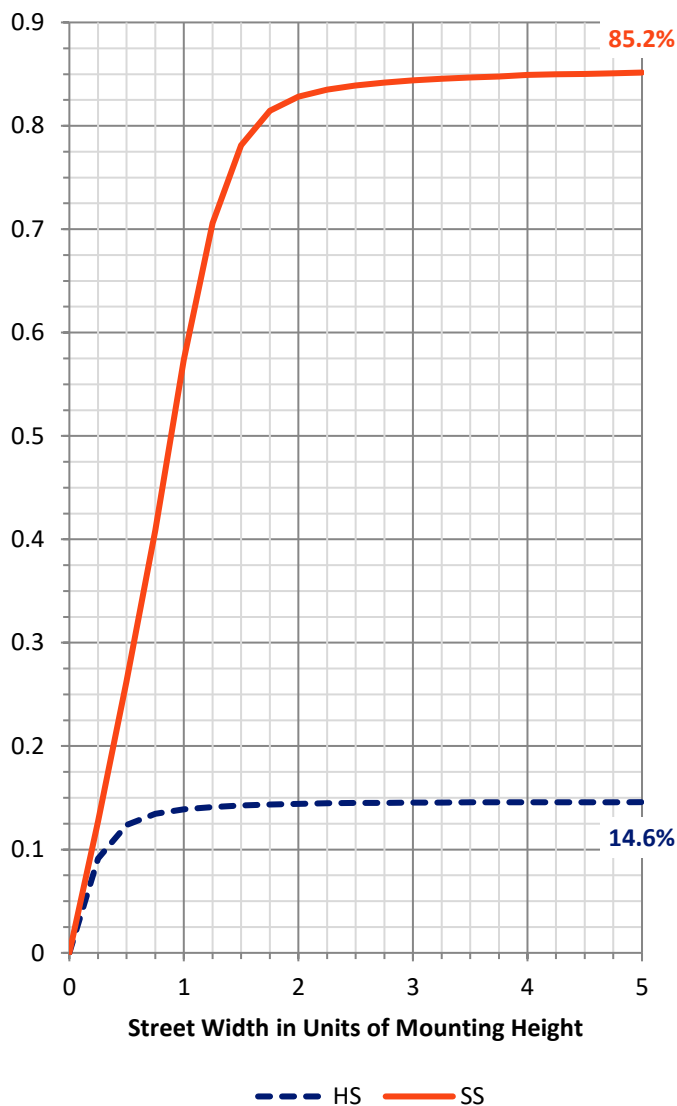
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5146.9	0.0	5146.9
	% Fixture	14.7	0.0	14.7
Street Side	Lumens	29868.1	0.0	29868.1
	% Fixture	85.3	0.0	85.3
Total	Lumens	35015.0	0.0	35015.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	407.2	1.2
10°-20°	1129.7	3.2
20°-30°	1967.2	5.6
30°-40°	3545.6	10.1
40°-50°	7032.1	20.1
50°-60°	9578.9	27.4
60°-70°	7645.8	21.8
70°-80°	3459.9	9.9
80°-90°	248.7	0.7
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°	35015.0	100.0
0°-180°	35015.0	100.0

Coefficient of Utilization



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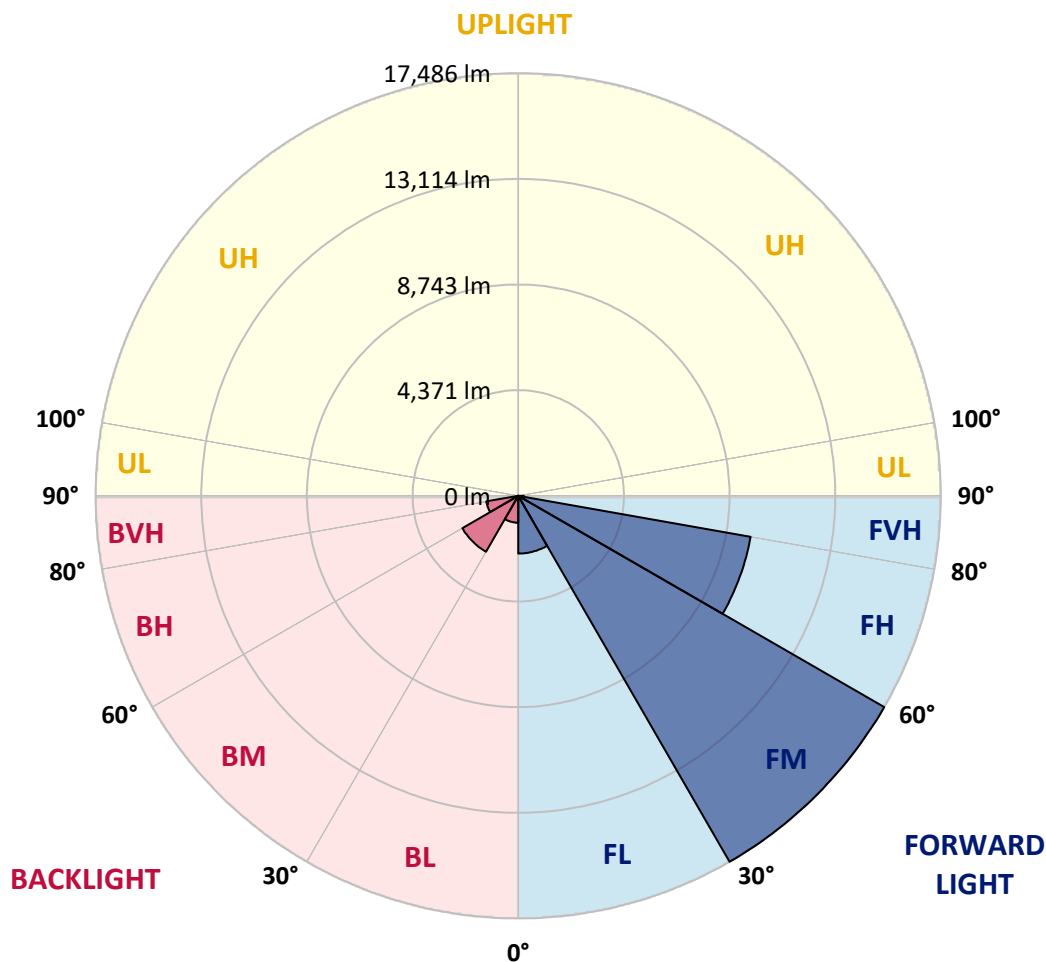
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2390.2	6.8			
FM	(30°-60°)	17485.6	49.9			
FH	(60°-80°)	9762.0	27.9			G4/12000
FVH	(80°-90°)	230.2	0.7			G3/500
BL	(0°-30°)	1113.9	3.2	B3/2500		
BM	(30°-60°)	2670.9	7.6	B3/5000		
BH	(60°-80°)	1343.7	3.8	B3/2500		G3/2500
BVH	(80°-90°)	18.5	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	4321.5	4321.5	4321.5	4321.5	4321.5	4321.5	4321.5	4321.5	4321.5	4321.5	4321.5
2.5°	4422.7	4410.7	4427.5	4420.3	4415.5	4405.9	4401.0	4396.2	4386.6	4379.3	4350.4
5°	4434.8	4427.5	4444.4	4458.9	4473.3	4487.8	4494.9	4504.6	4494.9	4475.7	4446.8
7.5°	4333.6	4328.8	4364.9	4408.2	4473.3	4528.7	4588.9	4622.6	4625.0	4617.8	4586.5
10°	4326.3	4314.3	4350.4	4403.4	4487.8	4586.5	4692.4	4764.7	4774.3	4805.7	4772.0
12.5°	4439.6	4427.5	4478.1	4535.9	4622.6	4726.2	4856.2	4957.4	4971.9	5015.2	4991.1
15°	4629.8	4613.0	4670.8	4745.4	4856.2	4974.3	5111.7	5203.2	5215.2	5268.2	5224.8
17.5°	4851.4	4834.6	4902.1	4981.5	5102.0	5263.4	5422.4	5523.5	5538.0	5571.7	5492.3
20°	5135.8	5114.0	5167.0	5239.3	5367.0	5559.7	5749.9	5894.5	5892.1	5892.1	5762.0
22.5°	5465.7	5432.0	5477.8	5535.6	5656.1	5889.6	6142.6	6313.7	6313.7	6246.2	6031.8
25°	5819.8	5786.1	5836.7	5889.6	5995.6	6260.7	6556.9	6768.9	6778.5	6662.9	6320.9
27.5°	6263.1	6219.7	6258.2	6320.9	6383.5	6653.3	7005.0	7250.7	7255.6	7077.2	6595.5
30°	7115.9	6993.0	6872.5	6805.1	6834.0	7101.3	7477.2	7749.3	7773.4	7527.7	6894.2
32.5°	8676.7	8652.6	8228.7	7674.7	7385.6	7583.2	8004.6	8332.3	8346.8	8031.2	7282.0
35°	11102.5	11073.6	10391.9	9336.8	8395.0	8228.7	8645.5	9033.2	9023.6	8667.1	7785.5
37.5°	13997.9	13971.5	13073.0	11661.3	10136.5	9204.3	9471.7	9878.7	9939.0	9471.7	8435.9
40°	16471.9	16373.1	15804.6	14443.6	12449.0	10823.1	10647.2	10917.0	10979.6	10425.6	9262.1
42.5°	18346.0	18261.6	17972.6	17122.2	15248.2	13217.5	12032.3	12135.9	12205.8	11540.9	10211.3
45°	19316.7	19297.5	19413.1	19333.7	18100.3	16156.3	14012.4	13581.2	13607.7	12776.6	11288.0
47.5°	19454.1	19444.5	19971.9	20718.7	20552.5	19470.9	16553.8	15383.1	15289.1	14171.3	12458.7
50°	18644.6	18625.4	19637.2	21036.7	22190.5	22255.5	19439.6	17413.7	17206.6	15614.3	13680.0
52.5°	16059.9	16055.1	17717.2	20046.6	22766.3	24693.4	22291.7	19644.3	19297.5	17141.5	14971.1
55°	12357.5	12446.7	14352.0	17105.4	21716.0	25866.5	24852.4	22120.6	21588.3	18678.4	16161.1
57.5°	8753.8	8883.9	10767.6	13219.9	18459.2	25172.7	26584.3	24601.8	24028.5	20210.4	17368.0
60°	4702.1	4817.7	6703.9	9630.7	13733.0	22585.6	27497.3	26755.4	26213.4	21665.4	18456.8
62.5°	2801.5	2840.1	3620.5	6217.3	9288.7	17254.7	27109.4	28395.8	27950.1	22886.7	19403.5
65°	2011.4	2018.6	2411.3	3796.4	5639.1	10483.4	24389.9	29181.0	29043.8	23806.9	20104.5
67.5°	1693.4	1688.6	1852.4	2522.1	3842.1	5251.4	18692.8	28070.5	28653.6	24389.9	20501.9
70°	1452.5	1459.8	1652.5	1847.6	2888.2	2972.5	9293.5	24440.4	25683.4	24544.0	20477.9
72.5°	1081.6	1105.7	1283.9	1683.8	2180.1	2045.2	3208.7	18121.9	20369.4	23125.1	19415.6
75°	763.6	775.6	903.3	1416.4	1626.0	1488.7	1638.1	9368.1	12249.2	17729.3	15891.3
77.5°	587.7	609.5	684.1	990.0	1601.9	1045.5	1002.0	3242.4	4981.5	10709.8	10895.3
80°	318.0	356.5	493.8	715.4	1124.9	739.5	496.2	1291.2	1688.6	5008.0	4201.1
82.5°	163.8	183.1	344.5	515.5	640.7	645.5	245.7	537.2	696.2	1546.5	575.7
85°	65.1	79.5	231.2	284.2	330.0	318.0	110.8	216.8	250.5	428.8	175.9
87.5°	14.5	24.1	84.4	65.1	62.6	67.4	26.5	50.6	48.2	50.6	31.4
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°	4321.5	4321.5	4321.5	4321.5	4321.5	4321.5	4321.5	4321.5	4321.5	4321.5	4321.5
2.5°	4348.0	4338.4	4311.9	4283.0	4249.2	4230.0	4218.0	4215.5	4198.7	4186.6	4198.7
5°	4420.3	4410.7	4360.0	4299.9	4234.8	4184.3	4136.1	4092.7	4030.0	4018.0	4013.2
7.5°	4564.8	4538.3	4456.4	4374.5	4251.7	4104.7	3926.5	3721.7	3538.6	3483.3	3456.7
10°	4743.1	4706.9	4603.4	4458.9	4186.6	3786.8	3355.5	2955.7	2637.7	2548.6	2514.8
12.5°	4945.4	4914.1	4776.8	4509.4	3914.4	3189.4	2529.3	2033.1	1724.8	1647.7	1626.0
15°	5186.3	5140.6	4950.2	4432.3	3427.8	2423.3	1736.8	1442.9	1332.1	1317.6	1303.2
17.5°	5441.6	5367.0	5104.4	4155.3	2772.6	1722.3	1341.7	1257.5	1209.3	1194.8	1187.6
20°	5675.3	5579.0	5195.9	3736.1	2071.6	1341.7	1202.0	1146.7	1103.3	1086.4	1076.8
22.5°	5908.9	5771.7	5195.9	3165.3	1553.7	1190.0	1103.3	1052.7	1002.0	980.4	968.3
25°	6152.3	5969.2	5104.4	2529.3	1250.2	1091.2	1009.3	953.9	910.5	884.1	874.4
27.5°	6388.3	6135.4	4894.8	1927.1	1112.9	1004.5	922.6	869.6	828.6	809.3	809.3
30°	6612.4	6299.2	4600.9	1462.2	1023.8	920.1	843.1	797.3	756.3	737.1	739.5
32.5°	6915.9	6506.4	4287.8	1199.7	946.7	840.7	770.8	727.4	691.4	676.9	676.9
35°	7337.5	6812.3	4018.0	1177.9	881.6	775.6	705.8	664.8	628.7	616.6	616.6
37.5°	7934.8	7306.1	3875.8	1322.5	828.6	717.8	652.8	609.5	575.7	566.1	563.6
40°	8671.9	7975.7	3952.9	1467.0	792.5	667.3	604.6	561.3	532.4	520.3	517.9
42.5°	9546.3	8802.0	4379.3	1577.8	768.4	623.9	558.8	510.7	491.4	486.6	486.6
45°	10550.8	9710.1	5032.1	1695.9	729.9	582.9	513.1	476.9	462.5	460.1	457.7
47.5°	11692.7	10707.5	5788.5	1842.7	691.4	544.4	476.9	452.8	440.9	436.0	436.0
50°	12824.8	11712.0	6566.6	1924.6	660.0	508.3	448.0	428.8	419.1	416.8	416.8
52.5°	14010.0	12745.4	7195.3	1847.6	633.6	479.4	423.9	409.5	399.9	397.5	397.5
55°	15139.8	13581.2	7303.7	1568.1	580.6	450.5	397.5	390.2	378.2	378.2	375.8
57.5°	16112.9	14000.4	6537.7	1151.5	527.6	407.1	370.9	363.8	354.1	351.7	349.3
60°	17006.6	13879.9	5046.6	775.6	469.8	363.8	337.2	332.4	322.8	310.8	308.3
62.5°	17510.1	13350.0	3451.9	505.8	411.9	318.0	298.7	296.3	274.6	250.5	245.7
65°	17700.4	12261.2	2153.5	368.6	344.5	272.2	257.8	253.0	221.6	195.2	192.7
67.5°	17534.2	10468.9	1086.4	291.5	272.2	226.4	212.0	212.0	190.3	166.3	163.8
70°	16869.3	7848.1	457.7	233.7	209.6	173.4	173.4	183.1	161.4	134.9	132.5
72.5°	15426.5	5280.3	243.3	178.2	156.6	122.9	142.2	149.3	127.7	101.2	101.2
75°	12263.6	3220.7	168.6	132.5	98.8	86.7	108.4	113.3	86.7	67.4	65.1
77.5°	8387.7	1850.0	113.3	84.4	62.6	50.6	74.7	69.9	45.8	31.4	33.7
80°	3683.1	770.8	65.1	38.5	24.1	19.3	26.5	19.3	14.5	9.6	9.6
82.5°	431.2	180.7	24.1	14.5	9.6	4.8	2.5	0.0	0.0	0.0	0.0
85°	89.2	21.7	12.1	4.8	2.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	16.9	4.8	2.5	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)