

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: P969443

Luminaire Tested: **NAV-SB5D-827-U-T3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969443
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-827-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 45847.2 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U0 - G5

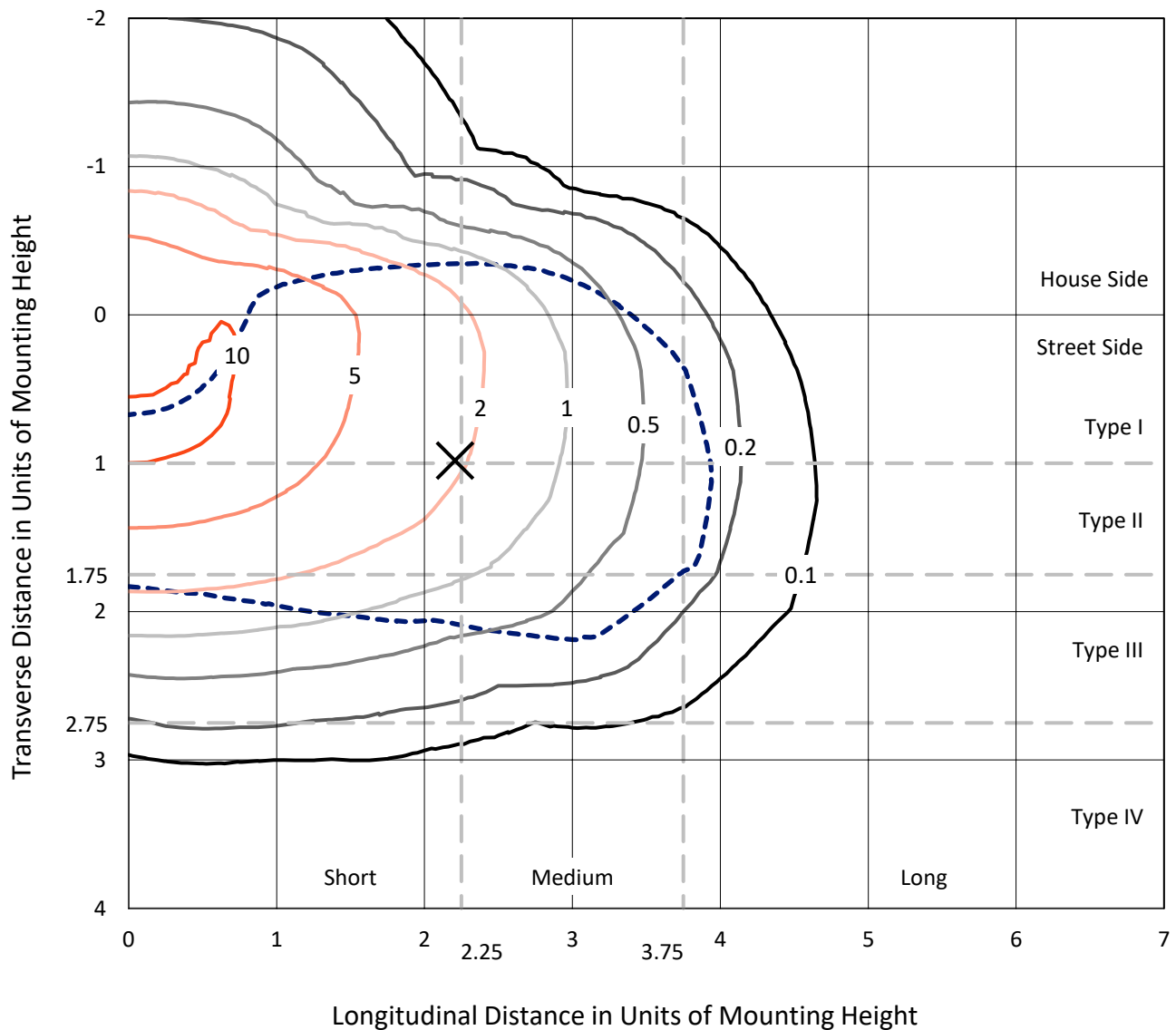
Input Watts (W): 364.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

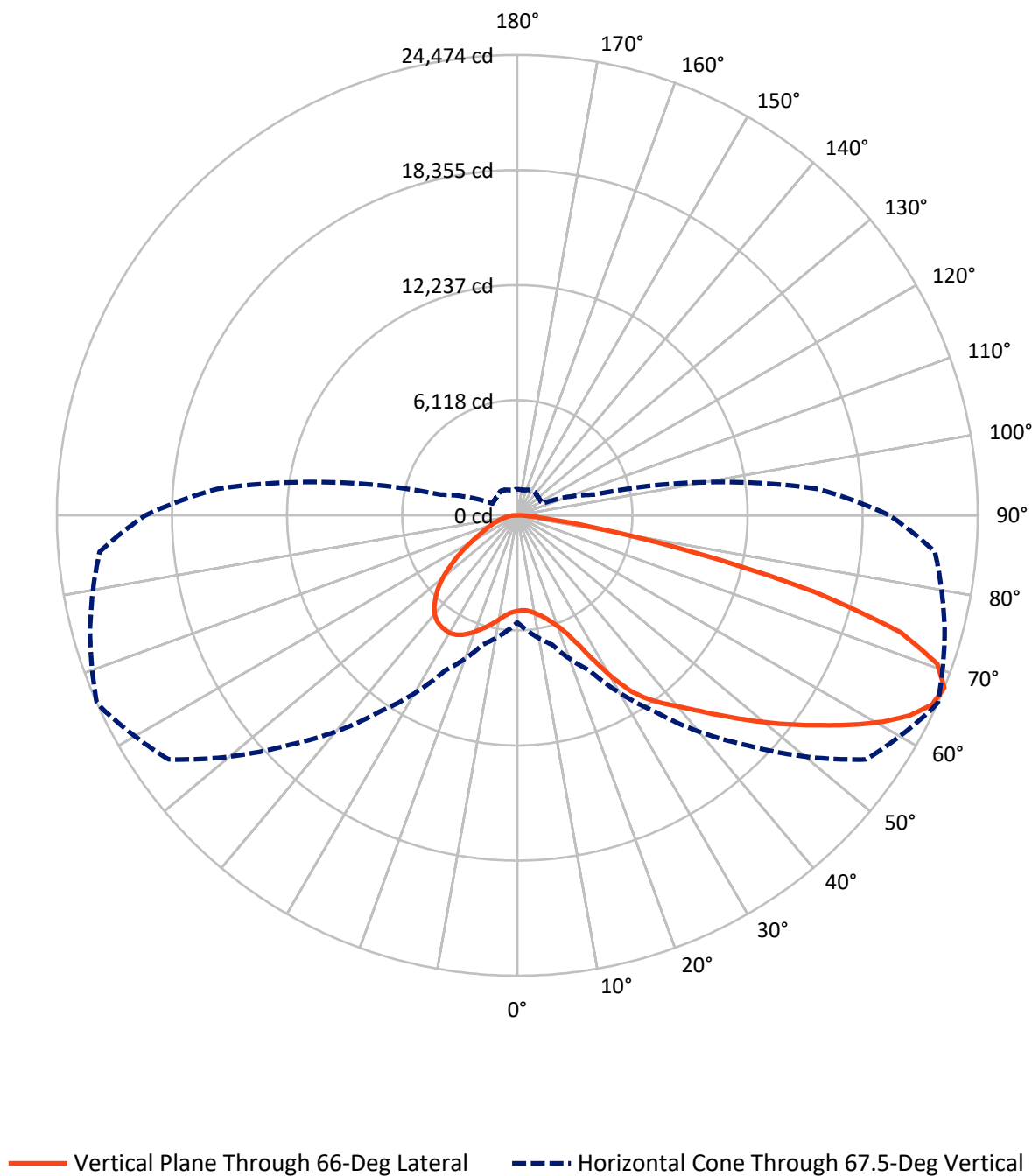
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.5 fc
Type III - Short - N/A

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Luminous Intensity Polar Plot



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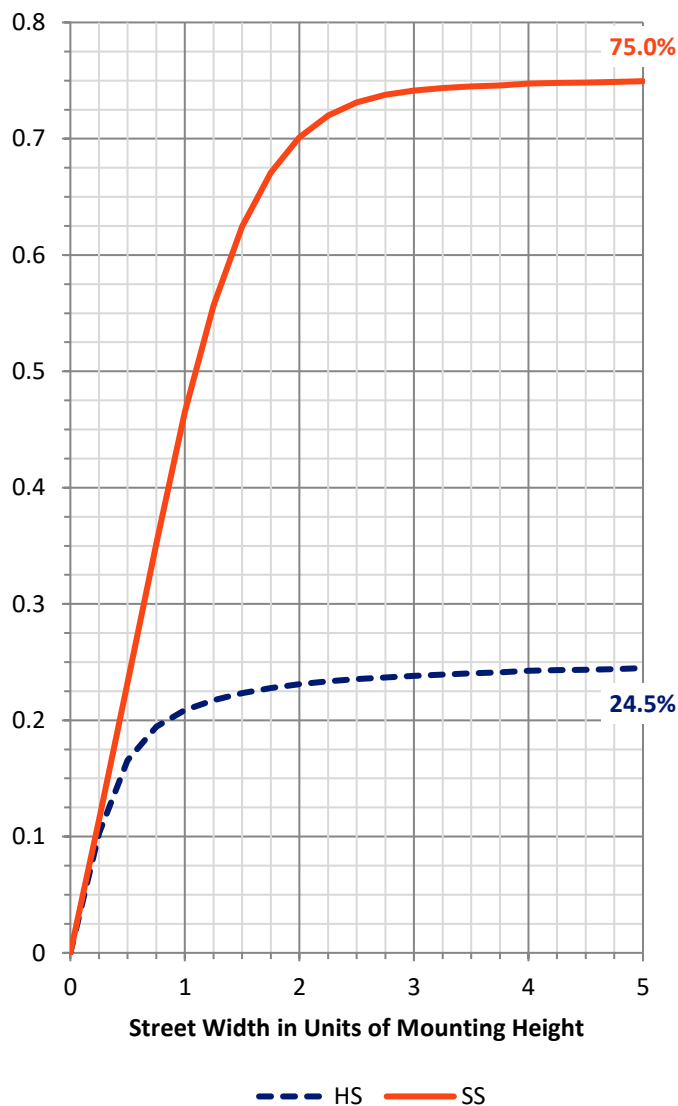
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11399.8	0.0	11399.8
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	34447.4	0.0	34447.4
	% Fixture	75.1	0.0	75.1
Total	Lumens	45847.2	0.0	45847.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	504.2	1.1
10°-20°	1665.7	3.6
20°-30°	3210.5	7.0
30°-40°	5629.2	12.3
40°-50°	8368.8	18.3
50°-60°	10608.3	23.1
60°-70°	10380.0	22.6
70°-80°	4951.3	10.8
80°-90°	529.2	1.2
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°	45847.2	100.0
0°-180°	45847.2	100.0

Coefficient of Utilization



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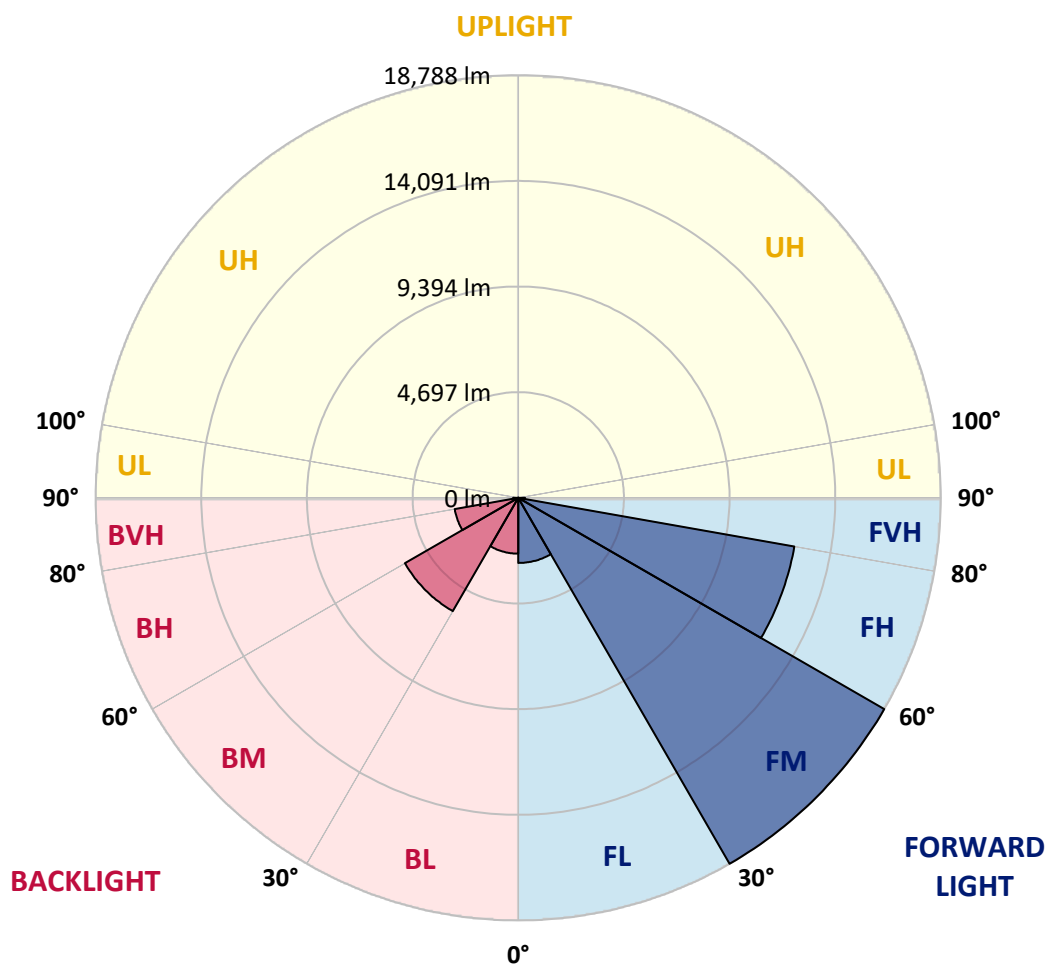
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2897.1	6.3			
FM	(30°-60°)	18787.8	41.0			
FH	(60°-80°)	12462.5	27.2			G5
FVH	(80°-90°)	300.0	0.7			G3/500
BL	(0°-30°)	2483.3	5.4	B3/2500		
BM	(30°-60°)	5818.6	12.7	B4/8500		
BH	(60°-80°)	2868.8	6.3	B4/5000		G4/5000
BVH	(80°-90°)	229.2	0.5			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type III Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	5085.0	5085.0	5085.0	5085.0	5085.0	5085.0	5085.0	5085.0	5085.0	5085.0	5085.0
2.5°	5032.0	5060.9	5053.8	5041.7	5039.3	5044.1	5051.3	5058.6	5056.1	5068.2	5087.5
5°	5017.6	5046.5	5044.1	5044.1	5053.8	5073.0	5085.0	5097.1	5085.0	5099.5	5126.0
7.5°	5027.2	5048.9	5058.6	5068.2	5092.3	5128.4	5157.3	5183.8	5169.4	5186.2	5219.9
10°	5150.1	5166.9	5176.6	5176.6	5193.5	5234.4	5263.3	5311.4	5299.5	5325.9	5369.3
12.5°	5374.1	5391.0	5391.0	5381.4	5393.3	5419.9	5429.5	5482.5	5460.9	5504.2	5547.6
15°	5648.8	5682.5	5656.0	5639.1	5644.0	5670.4	5668.0	5708.9	5687.3	5723.4	5761.9
17.5°	5952.3	5995.6	5952.3	5949.8	5940.2	5969.1	5971.5	6007.6	5969.1	5995.6	6022.1
20°	6311.1	6371.4	6335.2	6347.3	6325.6	6337.7	6349.7	6402.7	6342.5	6361.8	6354.5
22.5°	6817.1	6889.3	6850.8	6896.5	6882.1	6872.4	6870.1	6964.0	6870.1	6877.2	6807.4
25°	7554.1	7640.9	7573.4	7636.0	7636.0	7667.3	7703.5	7823.9	7667.3	7621.6	7440.9
27.5°	8642.9	8729.6	8597.2	8635.7	8623.6	8700.7	8662.2	8960.9	8792.2	8717.6	8353.9
30°	9953.4	10107.5	9857.0	9847.4	9835.3	9958.2	10013.5	10211.0	10040.1	9965.4	9527.0
32.5°	11369.7	11531.1	11232.5	11145.7	11099.9	11174.7	11128.8	11287.8	11169.8	11054.2	10512.2
35°	12868.1	13027.0	12742.8	12574.2	12391.1	12234.5	12070.7	12111.6	12000.8	11825.0	11263.7
37.5°	14284.4	14575.9	14274.8	14094.2	13756.9	13451.0	12993.3	12803.0	12699.4	12538.0	11971.9
40°	15727.3	15893.5	15664.7	15510.5	15144.4	14665.0	13932.7	13530.4	13390.7	13234.2	12754.8
42.5°	16789.6	16948.6	16825.8	16719.8	16433.1	15876.6	14929.9	14426.6	14224.2	14048.3	13641.3
45°	17632.7	17750.7	17673.7	17712.2	17589.3	17049.7	15963.4	15387.7	15178.1	14963.8	14643.4
47.5°	17972.4	18097.6	18220.5	18449.3	18658.9	18261.4	17073.8	16428.3	16206.7	15987.4	15671.9
50°	17933.8	18061.5	18418.0	18904.6	19554.9	19422.5	18244.6	17536.3	17331.6	17081.1	16789.6
52.5°	17625.5	17770.0	18227.7	19037.1	20072.9	20292.0	19437.0	18680.5	18487.8	18189.1	17897.7
55°	16816.1	16902.9	17589.3	18736.0	20195.7	20899.1	20605.3	19899.5	19706.8	19290.0	18972.0
57.5°	15315.4	15440.7	16440.4	17924.2	19887.4	21311.0	21631.4	21180.9	20995.5	20395.7	20063.2
60°	13357.0	13557.0	14701.2	16560.8	19102.1	21308.6	22563.6	22440.7	22286.6	21484.4	21137.6
62.5°	11140.9	11372.2	12473.0	14633.7	17729.1	20704.0	23146.6	23495.9	23416.3	22488.9	22045.7
65°	8556.2	8715.2	9811.2	12140.5	15592.4	19405.6	23214.0	24216.0	24230.5	23252.5	22520.3
67.5°	5697.0	6154.6	7106.1	9110.2	12730.7	17283.4	22621.4	24334.1	24473.8	23515.1	22281.8
70°	2779.8	3382.0	4314.2	5920.9	9110.2	14029.1	21072.6	23365.8	23676.5	22749.1	20860.6
72.5°	1153.8	1348.9	1857.2	2922.0	5229.5	9466.7	17960.4	20740.2	21315.8	20157.1	17538.8
75°	778.1	843.1	1062.3	1498.3	2382.3	4668.4	12952.3	15464.8	16392.2	15223.9	12444.1
77.5°	599.8	640.7	773.3	1047.9	1416.4	1765.7	6932.7	9319.8	9799.2	9071.7	6474.9
80°	472.1	503.5	578.1	763.6	1004.5	944.2	2363.0	4222.7	4499.8	3774.7	2081.3
82.5°	409.5	421.6	414.3	517.9	667.3	551.7	775.6	1558.5	1720.0	1247.7	679.3
85°	296.3	330.0	344.5	320.4	354.1	279.4	318.0	551.7	607.0	542.0	383.0
87.5°	120.4	178.2	219.2	207.2	130.1	79.5	98.8	161.4	185.5	202.3	125.3
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°	5085.0	5085.0	5085.0	5085.0	5085.0	5085.0	5085.0	5085.0	5085.0	5085.0	5085.0
2.5°	5089.8	5106.8	5118.7	5133.2	5142.8	5157.3	5186.2	5203.1	5205.5	5217.6	5215.1
5°	5135.7	5159.7	5186.2	5224.7	5268.1	5304.3	5359.6	5398.2	5412.6	5424.7	5422.2
7.5°	5234.4	5268.1	5316.3	5383.7	5446.4	5494.6	5562.1	5607.8	5653.6	5670.4	5672.9
10°	5381.4	5429.5	5499.4	5591.0	5658.4	5721.0	5790.8	5829.4	5875.2	5894.5	5904.1
12.5°	5564.4	5615.1	5706.6	5834.2	5896.8	5940.2	5964.3	5954.6	5964.3	5981.2	5986.0
15°	5774.0	5829.4	5933.0	6070.3	6113.6	6075.1	6022.1	5973.9	5966.7	5971.5	5988.4
17.5°	6022.1	6063.1	6183.5	6299.1	6267.8	6108.8	5993.2	5916.1	5877.6	5865.6	5882.4
20°	6368.9	6368.9	6467.7	6540.0	6330.4	6060.6	5880.0	5754.8	5675.2	5641.5	5634.3
22.5°	6790.5	6752.0	6814.6	6764.0	6318.4	5925.7	5675.2	5458.4	5338.0	5289.8	5282.5
25°	7325.3	7279.6	7262.6	6949.5	6231.7	5711.4	5304.3	5041.7	4935.7	4909.2	4914.1
27.5°	8132.2	8016.6	7797.4	7050.7	6072.7	5374.1	4870.7	4627.4	4567.2	4569.6	4576.8
30°	9206.6	8975.3	8438.2	7067.6	5812.6	4897.1	4427.5	4254.1	4225.2	4237.1	4278.1
32.5°	10201.4	9982.3	9093.4	6990.5	5412.6	4429.8	4030.0	3914.4	3871.0	3885.5	3904.7
35°	10982.0	10921.7	9700.4	6882.1	4921.2	3991.5	3673.5	3574.7	3490.4	3471.2	3485.6
37.5°	11719.0	11694.9	10155.7	6730.3	4434.7	3680.7	3386.8	3256.7	3133.9	3066.5	3068.8
40°	12528.4	12504.3	10454.4	6496.7	4003.4	3410.9	3129.1	2958.0	2806.3	2683.4	2695.4
42.5°	13438.9	13296.8	10596.4	6161.8	3637.3	3182.1	2919.5	2688.3	2488.3	2375.1	2382.3
45°	14433.7	14113.4	10594.1	5735.5	3329.0	2972.5	2695.4	2367.9	2182.4	2076.4	2071.6
47.5°	15488.9	14893.9	10464.0	5263.3	3030.3	2741.3	2348.6	2098.1	1975.3	1910.2	1895.7
50°	16577.6	15623.8	10242.4	4721.4	2724.4	2478.7	2131.8	1960.8	1866.8	1806.7	1784.9
52.5°	17601.4	16286.1	9975.0	4107.1	2413.7	2223.3	2035.4	1903.0	1804.2	1736.8	1707.9
55°	18552.9	16857.0	9596.9	3478.3	2160.7	2052.4	1989.7	1878.9	1765.7	1686.2	1654.9
57.5°	19398.4	17228.0	8944.0	2888.2	1980.1	1934.3	1941.6	1837.9	1707.9	1640.4	1597.1
60°	20101.8	17500.2	7978.1	2341.4	1833.1	1818.7	1866.8	1760.8	1609.1	1532.1	1498.3
62.5°	20523.4	17495.4	6793.0	1917.5	1707.9	1712.7	1768.1	1664.5	1510.3	1438.1	1416.4
65°	20487.2	17066.7	5492.2	1640.4	1587.4	1592.2	1664.5	1558.5	1428.4	1385.1	1382.7
67.5°	19762.1	16021.2	4213.1	1459.8	1455.0	1476.6	1561.0	1486.2	1377.9	1373.1	1380.3
70°	17798.9	13850.8	3035.1	1315.2	1317.6	1348.9	1459.8	1440.5	1351.4	1361.0	1358.6
72.5°	14272.4	10560.4	2037.9	1163.5	1165.8	1216.5	1363.5	1404.4	1324.8	1452.5	1471.8
75°	9505.2	6585.7	1310.4	1002.0	1004.5	1069.5	1279.1	1334.4	1252.6	1447.7	1459.8
77.5°	4567.2	2960.5	949.0	843.1	843.1	903.3	1105.7	1194.7	1067.1	1124.9	1030.9
80°	1577.8	1112.8	746.7	679.3	664.8	705.8	932.2	1035.8	920.1	847.9	794.9
82.5°	621.5	578.1	599.8	527.6	479.4	505.8	725.1	855.2	676.9	611.8	609.5
85°	356.5	375.8	423.9	349.3	277.1	310.8	532.4	614.3	510.7	450.5	460.1
87.5°	96.4	132.5	195.2	180.7	125.3	132.5	253.0	339.7	293.9	226.4	233.7
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)