

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: P969451

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

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P969451
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5D-830-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3000K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40366.5 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

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



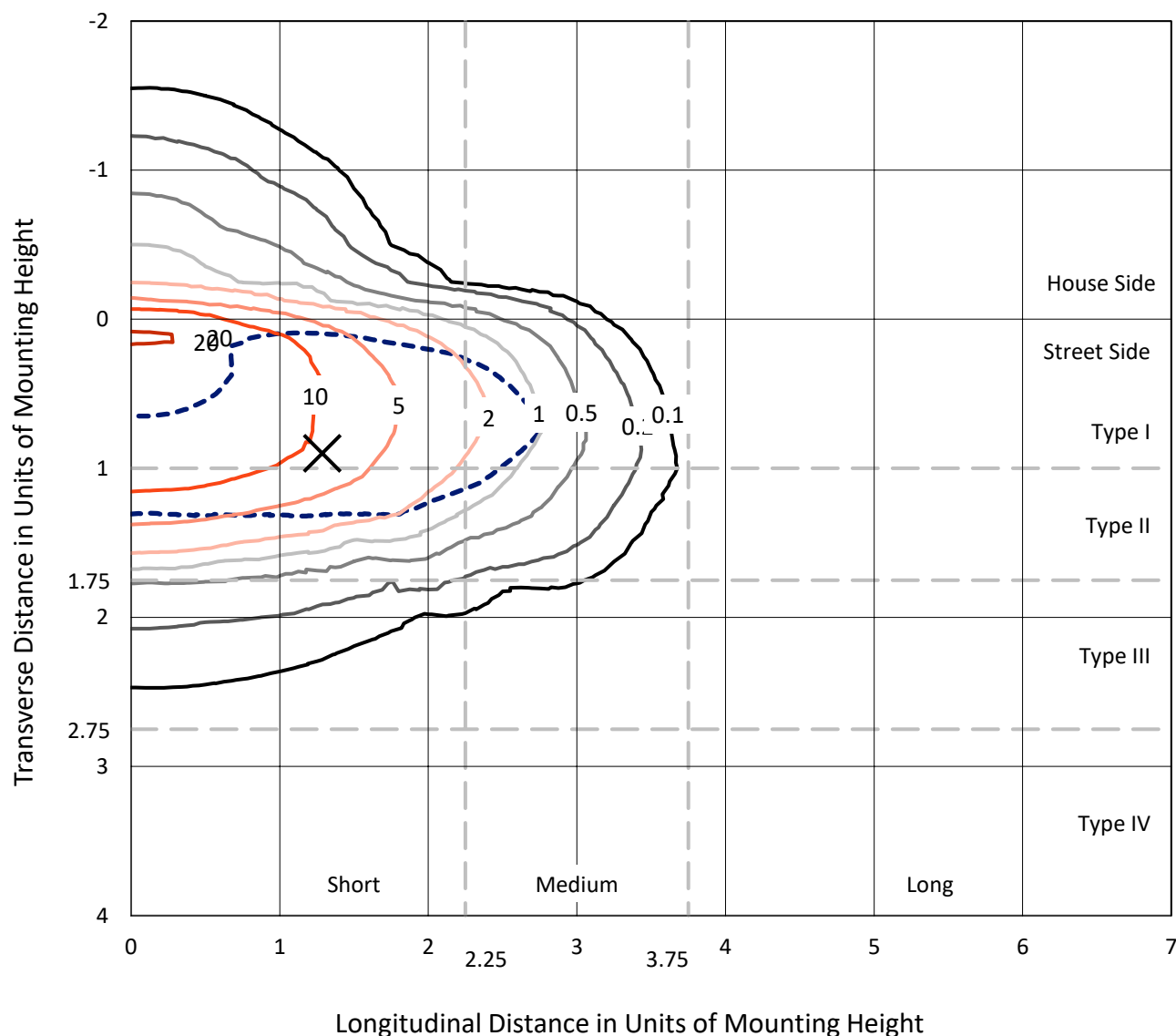
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

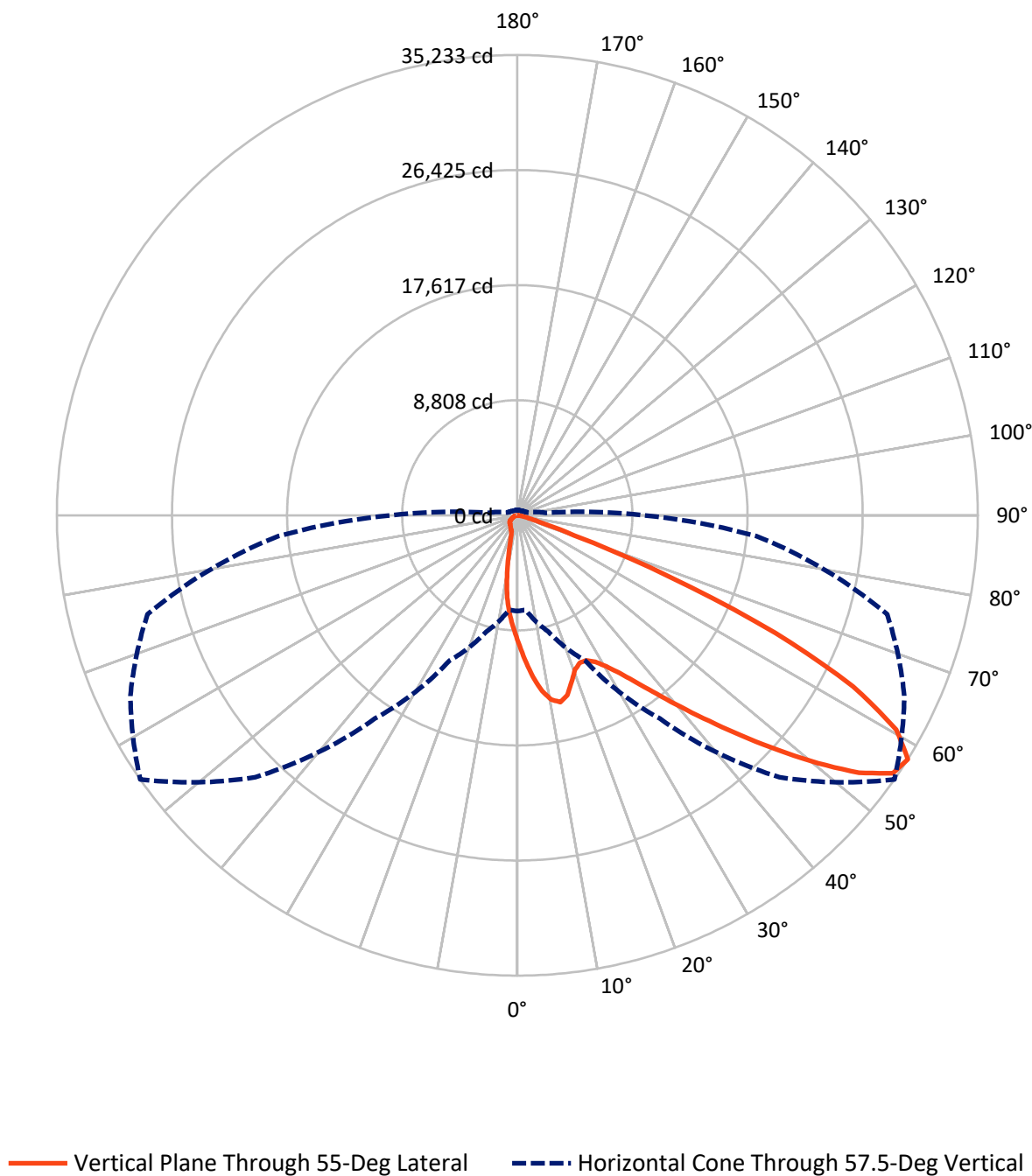


Based on 25 foot mounting height. Maximum calculated value = 22.3 fc

Type II - Short - N/A

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Luminous Intensity Polar Plot



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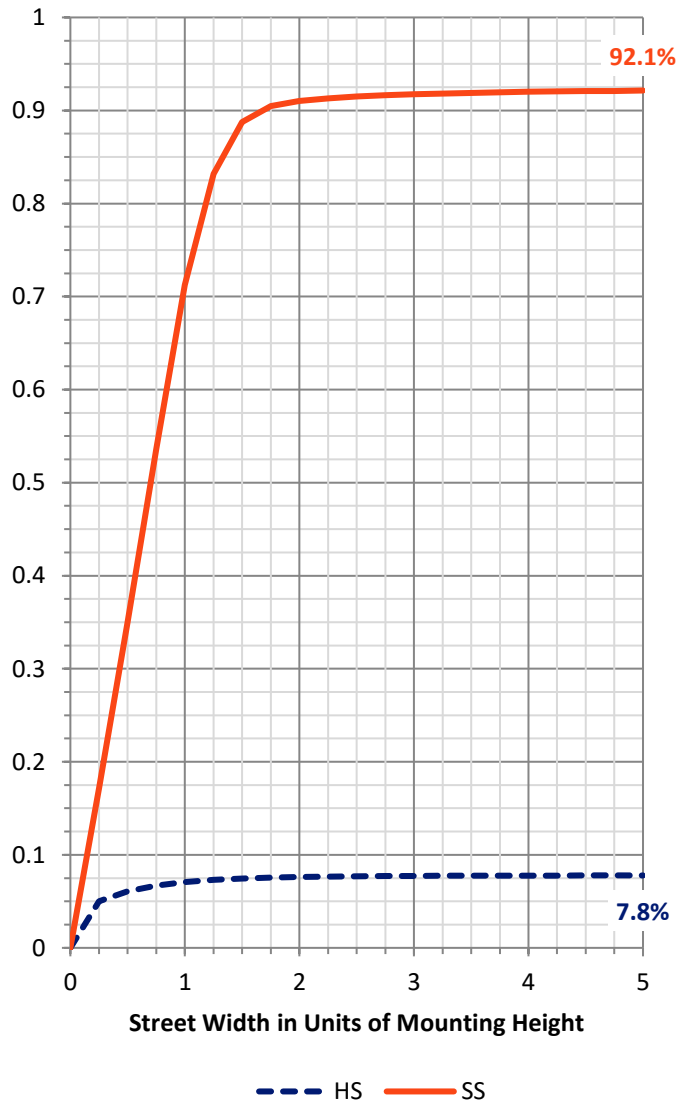
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3152.5	0.0	3152.5
	% Fixture	7.8	0.0	7.8
Street Side	Lumens	37214.1	0.0	37214.1
	% Fixture	92.2	0.0	92.2
Total	Lumens	40366.5	0.0	40366.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	905.1	2.2
10°-20°	2186.2	5.4
20°-30°	3497.9	8.7
30°-40°	5920.4	14.7
40°-50°	9720.1	24.1
50°-60°	10683.1	26.5
60°-70°	6127.8	15.2
70°-80°	1252.1	3.1
80°-90°	73.9	0.2
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°	40366.5	100.0
0°-180°	40366.5	100.0

Coefficient of Utilization



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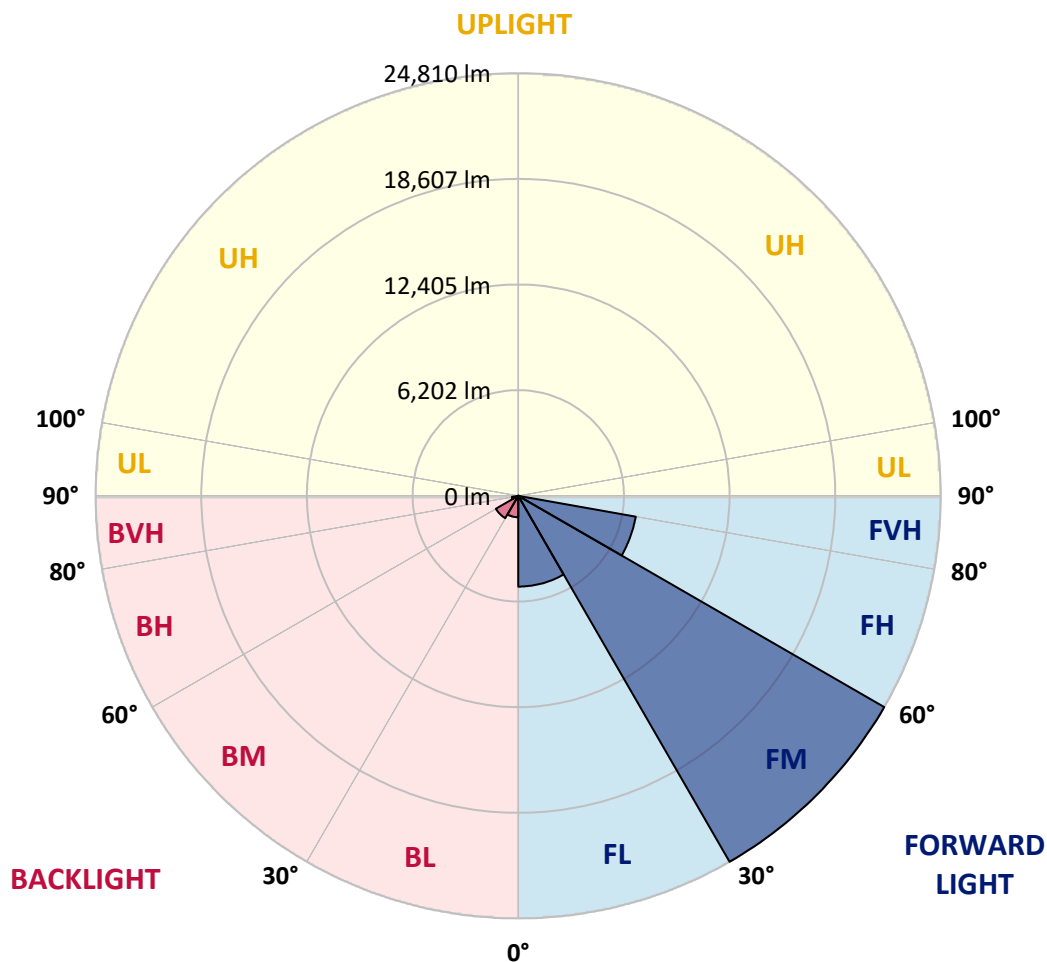
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5330.6	13.2			
FM	(30°-60°)	24809.6	61.5			
FH	(60°-80°)	7005.0	17.4			G3/7500
FVH	(80°-90°)	68.9	0.2			G1/100
BL	(0°-30°)	1258.5	3.1	B3/2500		
BM	(30°-60°)	1514.0	3.8	B2/2500		
BH	(60°-80°)	374.9	0.9	B1/500		G1/500
BVH	(80°-90°)	5.0	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-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	9727.4	9727.4	9727.4	9727.4	9727.4	9727.4	9727.4	9727.4	9727.4	9727.4	9727.4
2.5°	12069.6	11917.8	11895.3	11865.5	11576.8	11360.2	11046.5	10703.0	10317.2	9923.9	9749.7
5°	13943.9	13824.4	13801.9	13662.6	13334.0	12965.6	12408.1	11703.7	10984.3	10138.1	9774.6
7.5°	14307.3	14284.8	14386.9	14382.0	14337.1	14045.9	13575.5	12736.6	11656.4	10401.9	9839.4
10°	12686.8	12744.1	13047.7	13314.1	14033.5	14451.6	14349.6	13657.6	12348.4	10703.0	9911.5
12.5°	11210.8	11143.6	11360.2	11661.3	12497.7	13742.3	14670.6	14426.8	13139.9	11044.1	10018.6
15°	10284.8	10257.5	10379.5	10518.9	11156.1	12410.6	14297.3	15051.5	13901.6	11447.3	10180.4
17.5°	9988.7	9966.3	10003.6	10038.4	10451.6	11422.4	13408.7	15434.9	14630.8	11907.7	10359.6
20°	10230.1	10200.3	10195.3	10167.9	10339.7	11001.7	12604.7	15462.2	15285.5	12325.9	10513.9
22.5°	10934.6	10899.7	10777.8	10668.2	10683.2	11059.0	12246.3	15188.3	15778.3	12716.8	10611.0
25°	12211.4	12154.2	11900.4	11532.0	11298.0	11457.2	12301.0	14827.4	16248.7	13022.9	10563.6
27.5°	13809.4	13734.8	13408.7	12861.1	12325.9	12131.8	12696.8	14578.6	16639.5	13256.8	10461.7
30°	15375.1	15278.0	14956.9	14531.3	13749.7	13137.4	13411.2	14688.0	17105.0	13500.8	10327.2
32.5°	17065.1	16973.1	16547.4	16019.7	15372.5	14548.7	14389.4	15223.2	17675.0	13841.8	10232.7
35°	19203.3	19059.0	18454.1	17734.8	17047.7	16213.9	15713.6	16146.7	18434.1	14362.0	10284.8
37.5°	21637.6	21443.5	20791.3	19798.2	18902.1	17968.7	17326.5	17416.1	19546.8	15059.0	10446.7
40°	23932.5	23755.8	23153.4	22217.6	21092.6	19959.9	19275.4	19076.4	21082.5	15907.7	10730.4
42.5°	25309.0	25149.7	24895.8	24500.1	23551.7	22396.8	21533.1	21102.5	22899.6	16923.3	11076.5
45°	25386.2	25246.8	25587.8	26048.2	25861.6	25092.5	24039.6	23250.6	24724.1	17876.6	11434.9
47.5°	24151.6	24057.0	25092.5	26700.4	27501.9	27825.5	26854.7	25219.4	26230.0	18561.1	11581.7
50°	20786.4	20751.5	22882.2	25834.2	28126.6	30220.0	29824.2	27051.4	27397.3	18914.5	11442.3
52.5°	18023.5	17896.5	19138.6	23061.4	27218.2	31479.5	32726.5	28848.5	28213.7	18981.8	11116.2
55°	13670.0	13558.1	15116.2	18421.7	24288.5	31031.5	34849.7	30702.8	28798.7	18810.0	10531.4
57.5°	7332.8	7263.2	9232.0	12261.3	18986.7	28343.2	35233.0	32664.3	29291.5	18354.5	9712.4
60°	2854.9	2842.5	3579.3	5948.9	11539.3	23058.9	33299.0	33841.6	29600.2	17794.5	9027.9
62.5°	1727.4	1764.7	1884.3	2670.7	5097.6	14324.7	28841.0	32502.4	29806.8	17281.7	8462.9
65°	1428.7	1431.2	1446.2	1834.4	2441.8	5993.7	21712.3	28096.8	29296.6	16368.2	7661.4
67.5°	1224.7	1247.0	1304.3	1456.1	1722.4	2628.5	12500.2	21764.5	26192.6	14242.6	6411.9
70°	965.8	995.7	1067.8	1197.2	1329.2	1645.3	4619.8	14481.5	20009.7	10735.4	4848.8
72.5°	814.0	811.5	848.8	973.2	1055.3	1157.4	1777.2	8114.4	11629.0	5125.0	2399.5
75°	629.8	654.7	701.9	814.0	863.7	838.9	963.3	2964.5	4166.7	1553.2	816.4
77.5°	492.8	512.7	555.0	664.6	714.3	594.9	555.0	1060.4	1339.2	557.6	368.4
80°	221.5	238.9	378.3	490.4	582.4	410.7	301.1	542.6	594.9	253.9	186.7
82.5°	39.9	67.2	221.5	258.9	298.7	266.3	156.8	281.3	291.2	102.1	64.7
85°	2.5	5.0	77.2	94.6	119.5	87.1	47.3	112.0	97.1	34.8	24.9
87.5°	0.0	0.0	0.0	2.5	2.5	12.4	15.0	19.9	15.0	12.4	9.9
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9727.4	9727.4	9727.4	9727.4	9727.4	9727.4	9727.4	9727.4	9727.4	9727.4
2.5°	9570.5	9217.1	8873.6	8592.4	8428.1	8149.3	7965.1	7935.2	7858.1	7925.2
5°	9386.3	8754.1	8114.4	7541.9	7071.5	6464.2	6011.1	5819.4	5652.7	5710.0
7.5°	9299.2	8301.1	7305.5	6327.2	5321.7	4350.9	3629.1	3327.9	3098.9	3131.3
10°	9182.3	7830.7	6270.0	4776.6	3430.0	2471.7	1973.8	1789.6	1687.6	1690.1
12.5°	9092.7	7268.2	5067.8	3238.3	2088.3	1578.1	1423.7	1378.9	1349.1	1351.6
15°	9047.8	6606.0	3880.4	2158.0	1493.4	1336.6	1299.3	1279.4	1259.5	1257.0
17.5°	8973.2	5869.3	2840.1	1575.6	1306.8	1252.0	1219.6	1197.2	1172.4	1167.4
20°	8861.1	5033.0	2075.9	1331.7	1224.7	1182.3	1137.5	1107.6	1077.8	1072.8
22.5°	8654.6	4149.3	1595.5	1232.0	1164.9	1117.6	1062.8	1028.0	998.1	993.1
25°	8271.2	3320.5	1344.1	1169.8	1112.6	1055.3	995.7	948.3	921.0	915.9
27.5°	7785.9	2608.5	1219.6	1112.6	1045.4	993.1	926.0	881.1	856.3	851.3
30°	7213.3	2008.7	1147.5	1047.9	965.8	921.0	861.2	823.9	808.9	808.9
32.5°	6596.1	1605.5	1117.6	983.2	896.1	846.2	799.0	784.0	779.1	776.6
35°	6016.1	1393.9	1102.7	930.9	833.8	786.6	766.6	769.2	779.1	779.1
37.5°	5500.9	1326.7	1095.2	893.6	779.1	736.8	749.2	771.6	761.7	761.7
40°	5035.4	1334.1	1090.2	866.2	734.3	709.4	734.3	716.9	692.0	689.5
42.5°	4679.4	1396.4	1080.2	843.8	706.9	689.5	679.5	652.1	649.6	654.7
45°	4420.6	1451.1	1077.8	833.8	677.0	644.6	632.2	604.9	654.7	667.1
47.5°	4114.5	1451.1	1077.8	799.0	627.3	614.8	594.9	565.0	614.8	627.3
50°	3718.7	1359.0	1035.5	759.2	587.4	579.9	545.1	507.8	497.8	505.3
52.5°	3218.4	1192.3	928.4	704.4	547.6	532.7	490.4	463.0	455.5	455.5
55°	2648.4	998.1	784.0	624.7	505.3	477.9	448.0	435.6	428.1	423.1
57.5°	2153.0	818.9	629.8	555.0	465.5	430.6	420.7	405.7	393.3	385.8
60°	1767.2	644.6	520.2	492.8	425.7	393.3	390.8	370.8	338.6	333.5
62.5°	1364.0	472.9	438.1	428.1	385.8	358.4	353.4	313.6	263.8	253.9
65°	963.3	368.4	353.4	375.9	343.5	318.6	306.2	246.4	194.1	186.7
67.5°	677.0	308.6	278.8	328.5	298.7	266.3	258.9	209.1	161.7	156.8
70°	482.9	251.4	229.0	281.3	238.9	234.0	219.0	174.2	131.9	126.9
72.5°	341.0	191.7	176.7	244.0	164.3	201.6	179.2	134.4	99.5	94.6
75°	251.4	136.9	124.4	141.9	119.5	151.8	126.9	89.6	62.2	59.8
77.5°	184.2	87.1	74.7	69.7	69.7	94.6	69.7	37.3	27.4	24.9
80°	129.5	39.9	34.8	29.8	27.4	22.4	9.9	5.0	2.5	2.5
82.5°	77.2	17.4	17.4	12.4	7.5	0.0	0.0	0.0	0.0	0.0
85°	17.4	7.5	7.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.5	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

(END OF REPORT)