

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: P966706

Luminaire Tested: **NAV-SB4C-740-U-T2-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966706
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-740-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23767.7 lumens
Efficiency: N/A
Efficacy: 118.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

Input Watts (W): 200.7
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

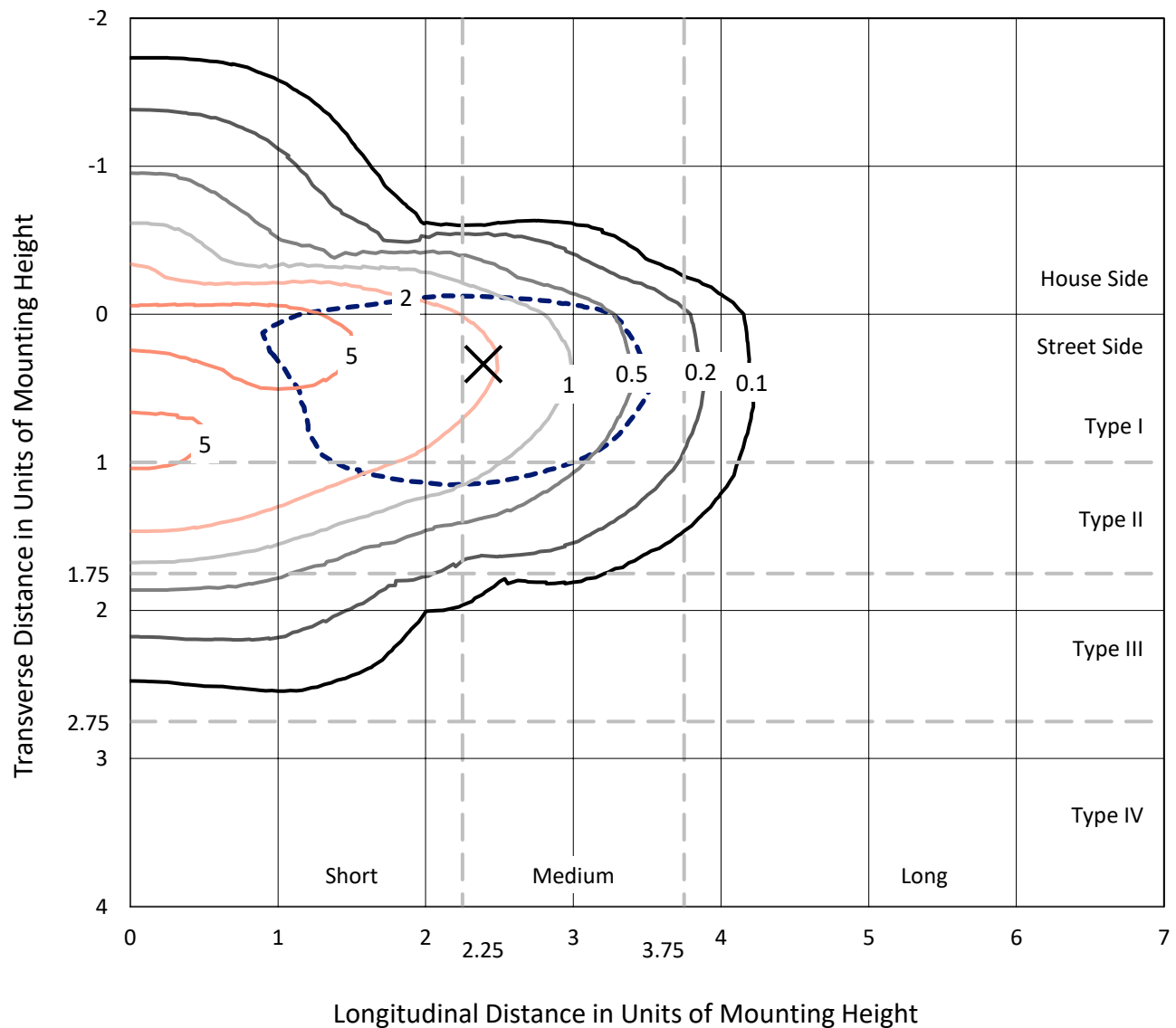


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Iso-Footcandle Lines of Horizontal Illumination

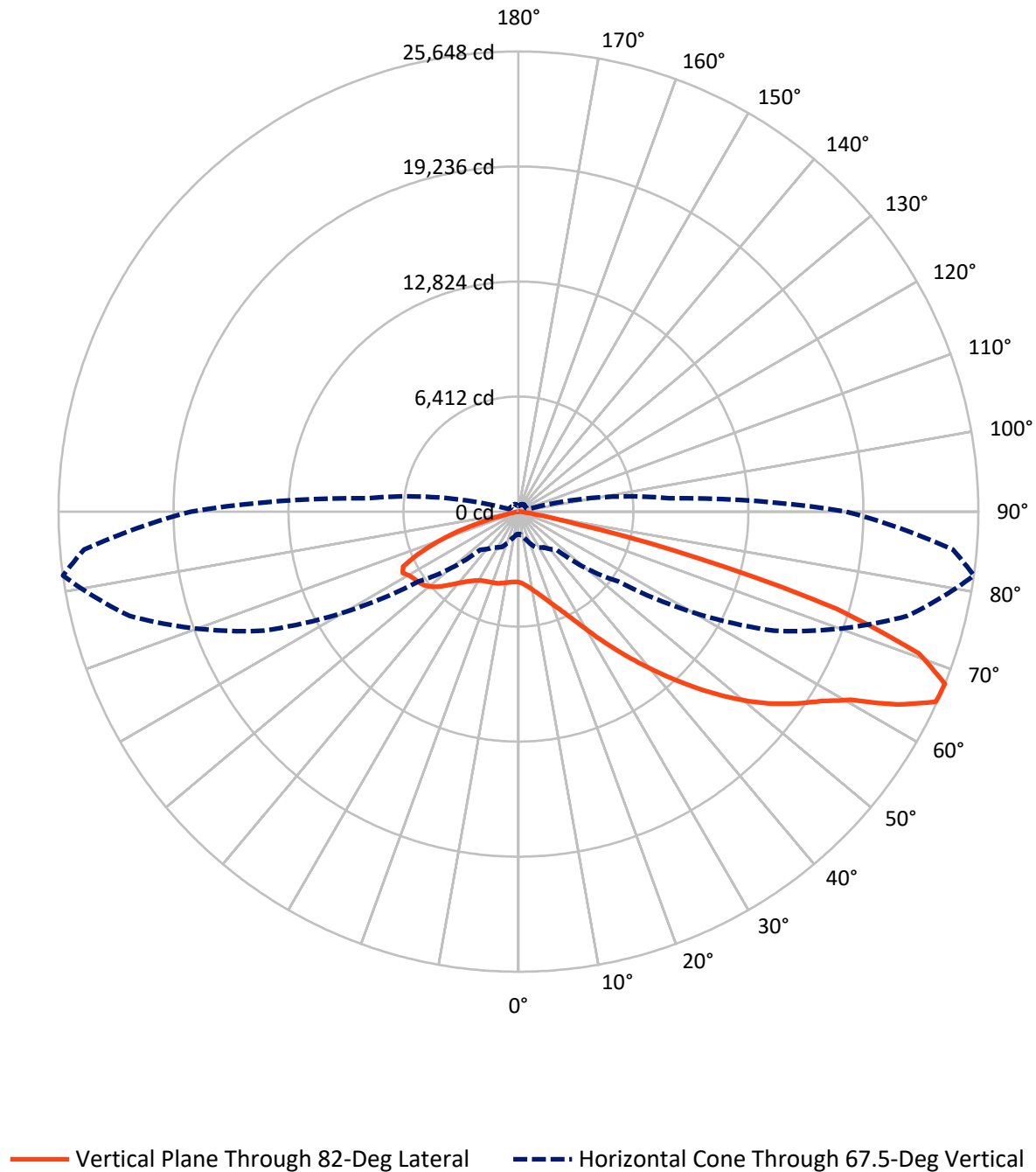
× Max cd
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.3 fc
Type II - Medium - N/A

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Luminous Intensity Polar Plot



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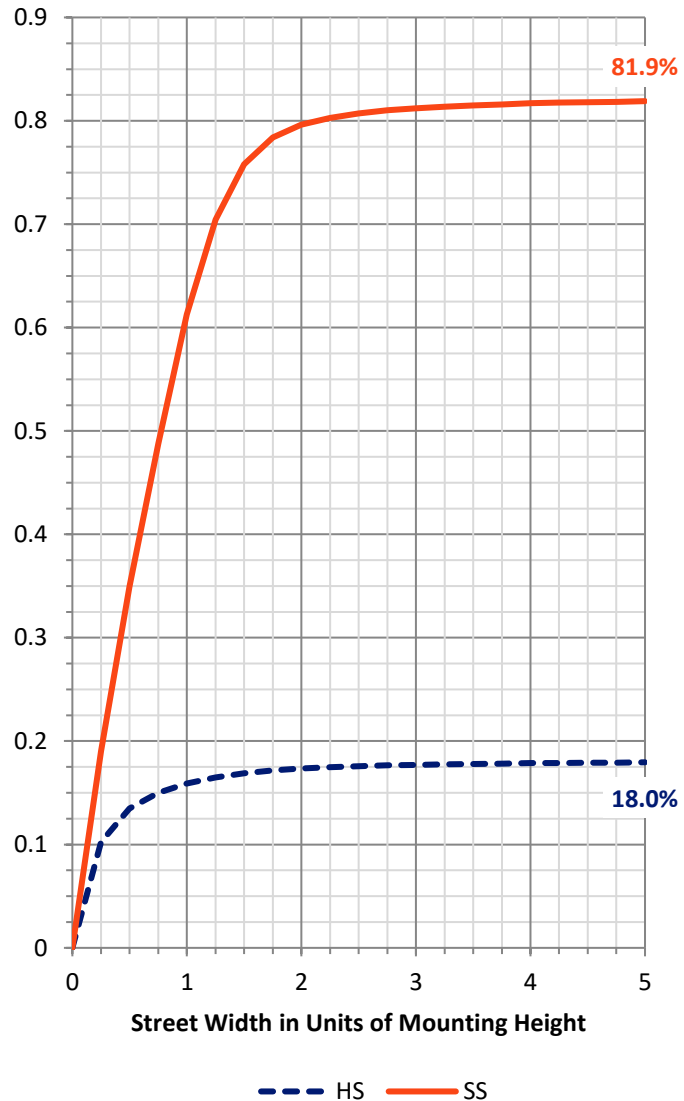
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4305.3	0.0	4305.3
	% Fixture	18.1	0.0	18.1
Street Side	Lumens	19462.4	0.0	19462.4
	% Fixture	81.9	0.0	81.9
Total	Lumens	23767.7	0.0	23767.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	350.8	1.5
10°-20°	911.6	3.8
20°-30°	1460.1	6.1
30°-40°	2581.9	10.9
40°-50°	4523.7	19.0
50°-60°	6033.3	25.4
60°-70°	5616.7	23.6
70°-80°	2155.7	9.1
80°-90°	133.9	0.6
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°	23767.7	100.0
0°-180°	23767.7	100.0

Coefficient of Utilization



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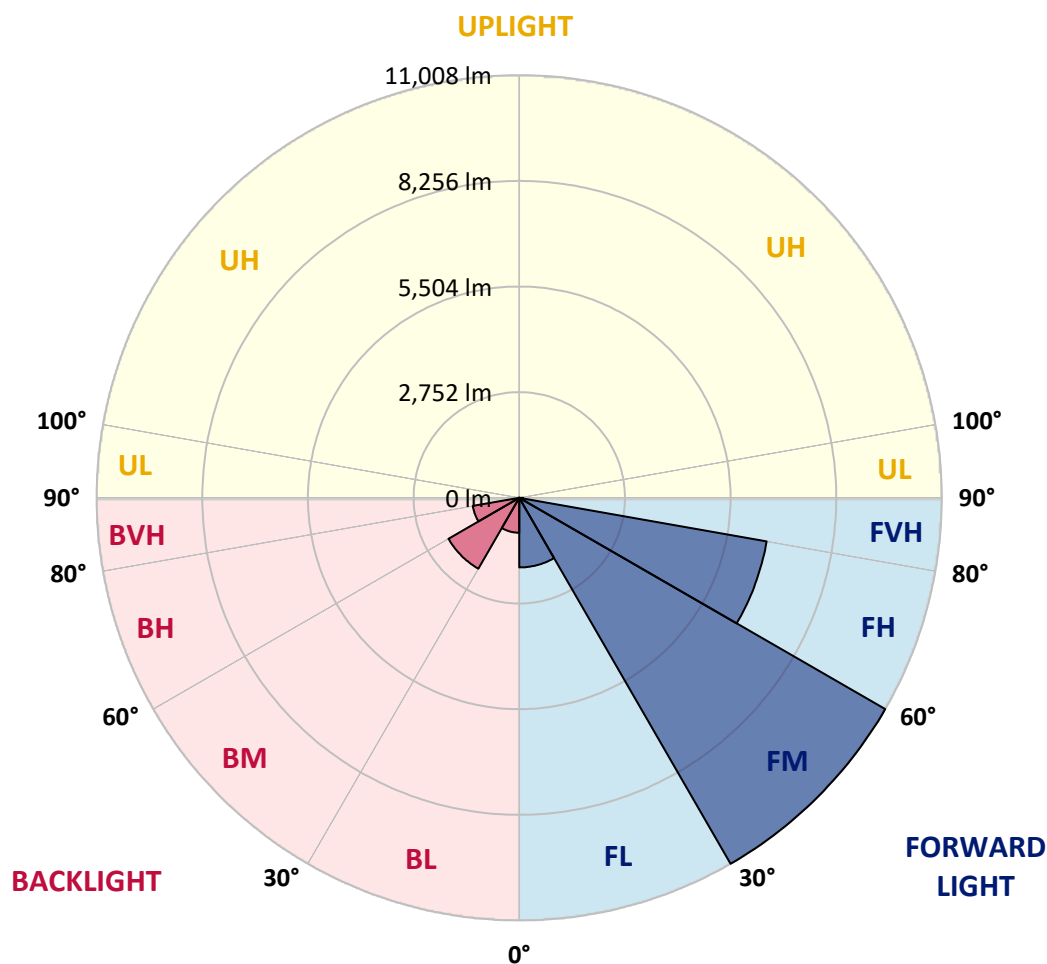
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1813.2	7.6			
FM	(30°-60°)	11008.2	46.3			
FH	(60°-80°)	6543.6	27.5			G3/7500
FVH	(80°-90°)	97.3	0.4			G1/100
BL	(0°-30°)	909.3	3.8	B2/1000		
BM	(30°-60°)	2130.7	9.0	B2/2500		
BH	(60°-80°)	1228.8	5.2	B3/2500		G3/2500
BVH	(80°-90°)	36.5	0.2			G1/100
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 Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	3937.5	3937.5	3937.5	3937.5	3937.5	3937.5	3937.5	3937.5	3937.5	3937.5	3937.5
2.5°	4161.7	4185.6	4172.0	4165.1	4153.1	4136.0	4122.3	4079.5	4035.0	4005.9	3995.7
5°	4245.5	4269.4	4267.8	4274.7	4283.2	4288.3	4284.9	4236.9	4173.7	4124.0	4095.0
7.5°	4173.7	4201.1	4223.3	4257.5	4317.4	4380.7	4411.5	4401.2	4336.3	4267.8	4231.8
10°	3970.0	3999.1	4052.1	4132.6	4259.2	4396.1	4510.7	4563.8	4522.7	4447.5	4397.9
12.5°	3596.9	3626.0	3730.5	3904.9	4117.2	4355.0	4574.1	4716.1	4726.4	4651.0	4592.9
15°	3177.7	3206.8	3318.0	3537.1	3860.5	4242.1	4608.3	4877.0	4967.7	4902.7	4832.5
17.5°	2917.7	2943.3	3027.1	3203.4	3540.5	4016.3	4596.3	5048.1	5255.2	5203.8	5120.0
20°	2838.9	2861.2	2900.5	3023.7	3304.4	3781.7	4517.6	5208.9	5564.8	5535.8	5441.6
22.5°	2922.8	2943.3	2955.3	3010.0	3186.3	3627.8	4418.4	5373.3	5924.2	5927.7	5813.0
25°	3116.1	3136.7	3123.0	3157.2	3234.2	3579.8	4380.7	5566.6	6376.0	6413.6	6283.6
27.5°	3434.4	3436.1	3403.6	3401.9	3413.9	3651.8	4420.1	5773.6	6945.8	7016.0	6855.1
30°	4072.7	4047.0	3922.1	3787.0	3725.4	3867.3	4529.6	6018.4	7618.3	7743.3	7541.3
32.5°	5056.6	5019.0	4789.7	4466.2	4141.1	4214.7	4726.4	6297.3	8350.7	8576.6	8330.2
35°	6124.5	6114.1	5874.6	5393.8	4825.6	4709.3	5046.4	6663.4	9149.9	9509.2	9216.6
37.5°	7117.0	7111.8	6974.9	6408.5	5717.1	5398.9	5559.7	7142.6	10005.4	10525.7	10180.0
40°	8023.9	8039.3	7902.3	7395.9	6699.4	6283.6	6257.9	7734.6	10956.9	11632.8	11222.1
42.5°	8807.6	8824.7	8686.2	8311.4	7669.7	7262.4	7115.2	8460.2	11886.1	12822.1	12336.2
45°	9339.8	9445.9	9425.4	9125.9	8665.6	8242.9	8145.4	9370.7	12945.3	14083.3	13513.5
47.5°	9490.4	9588.0	9741.9	9783.0	9502.4	9086.5	9202.9	10467.5	14016.6	15346.2	14697.6
50°	9119.0	9209.7	9529.7	9955.8	10150.9	10022.6	10231.3	11643.1	15113.4	16605.6	15859.5
52.5°	8386.7	8479.1	8883.0	9557.1	10352.8	10756.7	11263.2	12801.6	16176.1	17798.3	16959.9
55°	7327.4	7425.0	7943.4	8706.7	9967.8	11059.5	12123.9	13958.3	17149.8	18871.3	17952.4
57.5°	5886.6	5958.4	6497.5	7565.3	8999.3	10758.4	12758.8	15221.2	18067.0	19925.4	18936.3
60°	3836.6	3899.8	4526.2	5717.1	7394.1	9752.3	12885.5	16629.6	19285.4	21296.0	20262.5
62.5°	2551.4	2594.2	2965.5	3840.0	5207.2	7820.2	12144.5	17753.8	21071.8	23681.5	22536.7
65°	1750.6	1793.3	2164.7	2773.9	3364.3	5173.0	10014.0	17605.0	22690.7	25575.8	24222.2
67.5°	1249.2	1285.1	1600.0	2174.9	2435.1	3004.9	6788.4	15702.1	22458.0	25647.7	24312.9
70°	894.9	915.5	1175.6	1694.1	1935.4	1805.3	3775.0	12009.3	19663.6	23683.2	22461.4
72.5°	626.3	633.1	816.2	1290.3	1558.9	1317.6	1796.8	8006.8	14872.1	18588.9	17413.3
75°	424.4	433.0	549.3	946.3	1250.9	1006.2	951.4	4293.4	8730.6	10289.6	9223.5
77.5°	260.1	263.5	354.2	646.9	936.0	766.6	612.6	1819.1	3377.9	3316.3	2827.0
80°	147.2	147.2	225.9	402.1	638.3	494.6	429.5	773.5	1069.5	939.4	828.2
82.5°	82.1	83.8	164.3	249.8	422.7	292.6	236.2	357.6	462.1	409.0	356.0
85°	34.2	37.6	101.0	118.1	201.9	145.4	95.8	150.6	171.1	152.3	111.2
87.5°	3.4	5.1	30.9	22.2	24.0	29.1	13.7	29.1	24.0	24.0	17.1
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°	3937.5	3937.5	3937.5	3937.5	3937.5	3937.5	3937.5	3937.5	3937.5	3937.5	3937.5
2.5°	3963.2	3937.5	3872.4	3797.2	3697.9	3650.0	3585.0	3540.5	3502.8	3506.3	3472.1
5°	4040.1	3975.2	3829.7	3648.3	3422.5	3261.5	3090.5	2972.4	2876.6	2856.1	2809.8
7.5°	4146.2	4043.6	3788.6	3461.8	3080.2	2791.0	2532.6	2366.6	2248.5	2210.9	2173.2
10°	4283.2	4134.3	3735.6	3227.3	2678.0	2310.1	2032.9	1902.9	1822.4	1795.1	1774.5
12.5°	4442.3	4238.7	3665.4	2941.5	2263.9	1909.7	1733.5	1668.4	1642.8	1634.3	1629.0
15°	4642.5	4368.8	3559.3	2602.8	1913.2	1665.0	1589.7	1581.2	1584.5	1581.2	1579.4
17.5°	4880.3	4510.7	3386.5	2253.7	1677.0	1540.1	1512.7	1519.6	1528.1	1526.4	1522.9
20°	5140.5	4651.0	3165.7	1943.9	1516.2	1451.1	1435.7	1442.6	1449.4	1446.0	1444.2
22.5°	5436.5	4801.7	2921.0	1702.6	1408.4	1369.0	1351.9	1353.6	1353.6	1346.7	1343.3
25°	5790.7	4967.7	2664.4	1531.6	1326.1	1295.4	1274.9	1268.0	1257.8	1237.2	1233.8
27.5°	6213.4	5143.9	2418.0	1411.7	1261.2	1232.0	1208.2	1191.0	1165.3	1131.1	1127.7
30°	6689.2	5357.8	2209.2	1336.5	1209.8	1180.7	1153.3	1127.7	1090.1	1047.2	1043.9
32.5°	7248.7	5587.1	2056.9	1286.8	1163.6	1132.8	1100.3	1069.5	1028.5	985.6	987.4
35°	7916.1	5864.3	1967.9	1252.7	1127.7	1086.6	1050.7	1016.5	985.6	948.0	944.6
37.5°	8639.9	6158.6	1940.5	1235.5	1103.7	1040.4	999.4	975.4	972.0	949.8	948.0
40°	9432.3	6507.7	1961.0	1225.2	1078.1	995.9	951.4	946.3	954.9	915.5	917.2
42.5°	10270.7	6921.8	1995.3	1213.3	1042.1	951.4	908.7	908.7	901.8	847.1	847.1
45°	11177.6	7399.3	2029.5	1184.2	999.4	906.9	874.4	862.4	833.3	780.3	778.6
47.5°	12091.4	7885.3	2055.1	1131.1	948.0	869.3	840.2	812.8	770.1	722.1	720.4
50°	12959.1	8321.7	2027.8	1052.4	889.8	833.3	802.6	765.0	718.7	686.2	681.1
52.5°	13734.2	8699.8	1911.4	960.0	828.2	795.7	768.3	729.0	691.4	657.1	653.6
55°	14408.4	9006.2	1706.1	872.7	773.5	763.2	735.8	686.2	634.9	605.8	602.4
57.5°	15055.3	9238.8	1449.4	800.8	723.9	727.2	686.2	641.8	593.8	563.0	559.5
60°	15916.0	9550.3	1189.3	734.1	670.8	681.1	636.5	604.0	544.2	504.8	499.7
62.5°	17291.9	10034.5	944.6	652.0	609.2	612.6	593.8	554.4	482.6	436.3	433.0
65°	18383.6	9856.6	744.4	563.0	539.0	544.2	544.2	501.4	424.4	371.4	366.2
67.5°	18260.4	8439.7	593.8	475.7	472.3	475.7	487.7	451.7	376.5	333.6	326.9
70°	16821.3	6713.1	475.7	395.2	410.7	402.1	436.3	412.4	338.9	296.0	290.9
72.5°	13725.7	4835.8	362.7	326.9	314.9	328.5	393.6	371.4	282.4	234.4	229.3
75°	8020.4	2580.5	270.4	258.4	227.6	273.8	349.1	316.6	215.7	172.8	167.7
77.5°	2611.3	900.1	198.5	189.9	169.4	220.8	297.8	266.9	176.3	136.9	131.7
80°	699.9	272.0	135.2	124.9	109.5	164.3	236.2	212.2	126.6	89.0	87.2
82.5°	280.6	114.7	78.7	70.1	59.9	113.0	186.5	171.1	94.1	56.5	56.5
85°	90.7	37.6	29.1	22.2	27.4	70.1	111.2	116.3	66.7	29.1	22.2
87.5°	12.0	5.1	5.1	6.9	5.1	12.0	34.2	32.5	18.9	3.4	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)