

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: P966811

Luminaire Tested: **NAV-SB4C-827-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P966811
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB4C-827-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20606.6 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

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



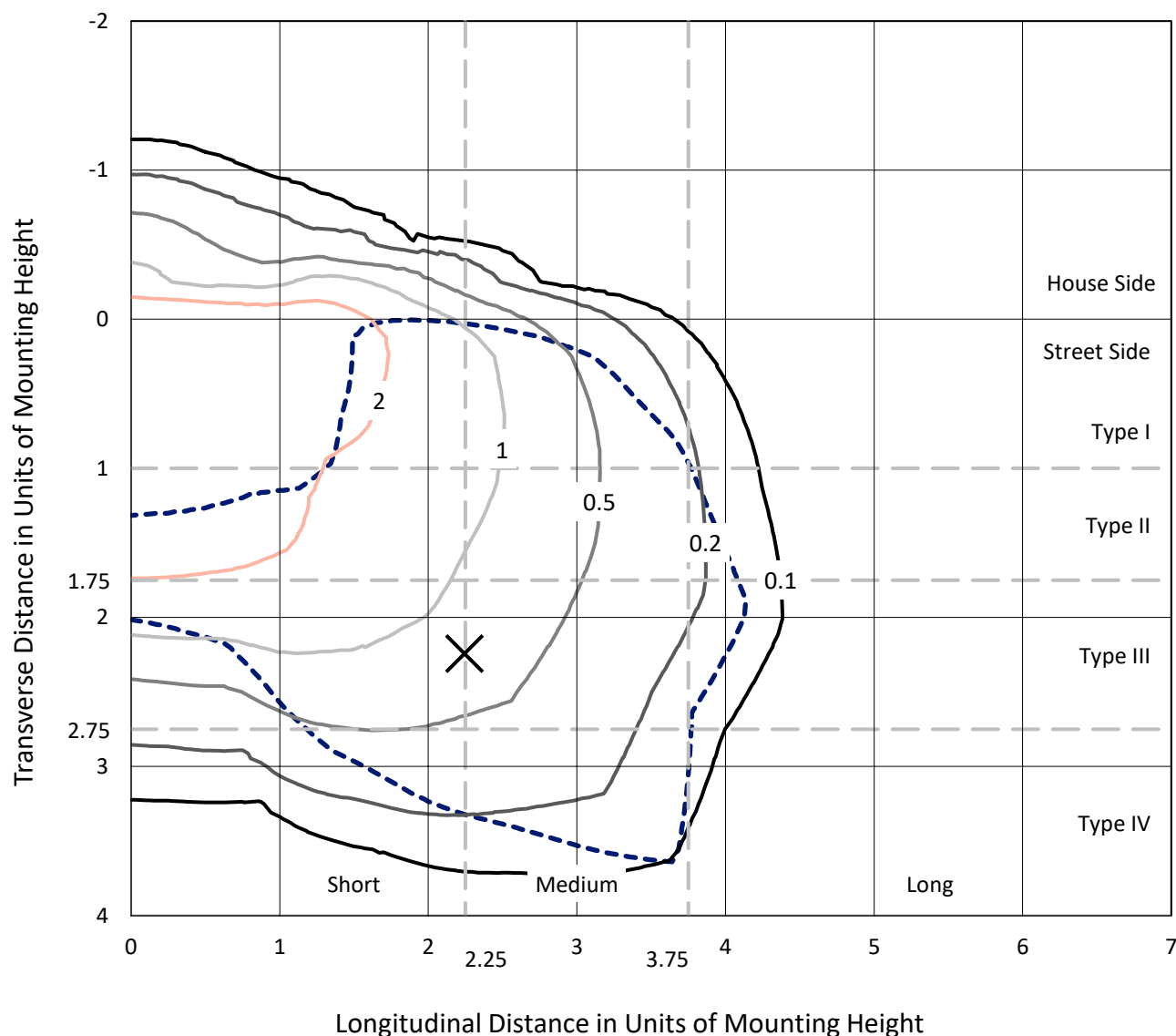
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

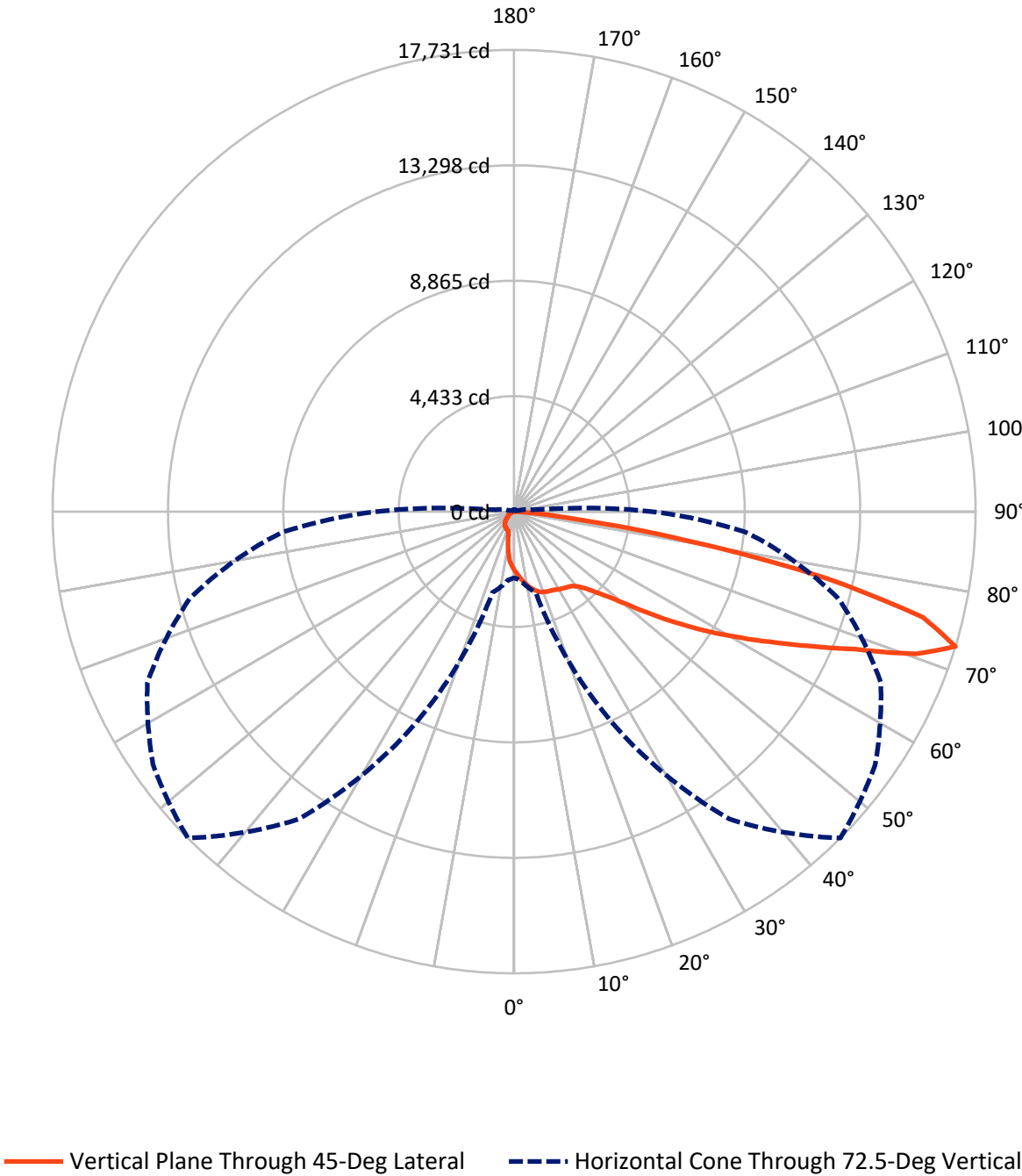


Based on 25 foot mounting height. Maximum calculated value = 5 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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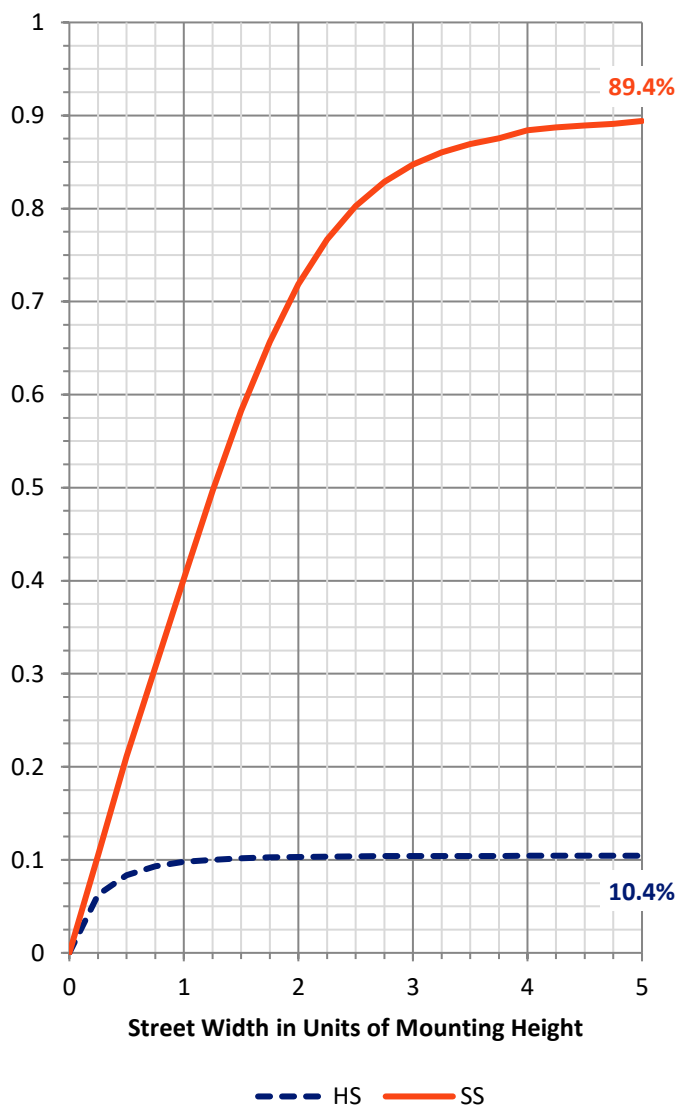
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2165.2	0.0	2165.2
	% Fixture	10.5	0.0	10.5
Street Side	Lumens	18441.4	0.0	18441.4
	% Fixture	89.5	0.0	89.5
Total	Lumens	20606.6	0.0	20606.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.7	1.0
10°-20°	621.6	3.0
20°-30°	1020.8	5.0
30°-40°	1447.8	7.0
40°-50°	2393.0	11.6
50°-60°	4298.8	20.9
60°-70°	5969.1	29.0
70°-80°	4329.8	21.0
80°-90°	313.0	1.5
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°	20606.6	100.0
0°-180°	20606.6	100.0

Coefficient of Utilization



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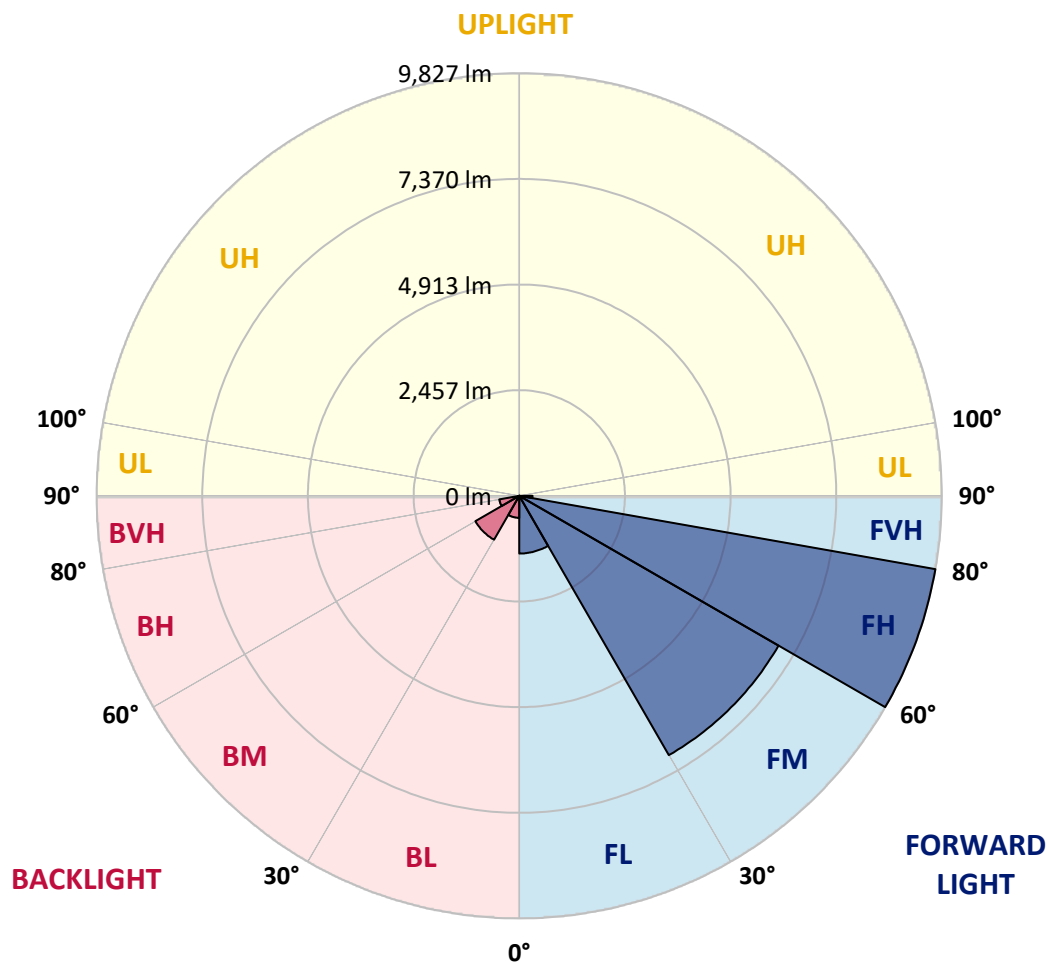
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1342.3	6.5			
FM	(30°-60°)	6962.0	33.8			
FH	(60°-80°)	9826.7	47.7			G4/12000
FVH	(80°-90°)	310.4	1.5			G3/500
BL	(0°-30°)	512.8	2.5	B2/1000		
BM	(30°-60°)	1177.6	5.7	B2/2500		
BH	(60°-80°)	472.2	2.3	B1/500		G1/500
BVH	(80°-90°)	2.6	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2257.5	2257.5	2257.5	2257.5	2257.5	2257.5	2257.5	2257.5	2257.5	2257.5	2257.5
2.5°	2465.6	2469.8	2467.1	2450.2	2422.1	2406.6	2398.2	2370.0	2351.8	2319.4	2285.6
5°	2692.2	2709.0	2699.1	2665.4	2611.9	2574.0	2562.7	2505.0	2453.0	2392.6	2322.2
7.5°	2932.6	2941.0	2922.8	2879.2	2807.5	2742.8	2733.0	2652.7	2569.8	2476.9	2381.3
10°	3140.8	3150.6	3122.6	3059.2	2977.6	2897.5	2883.4	2794.8	2696.4	2582.4	2460.0
12.5°	3315.3	3325.1	3288.5	3212.6	3122.6	3039.5	3025.5	2932.6	2824.3	2697.7	2545.8
15°	3447.4	3465.7	3416.5	3334.9	3237.9	3154.8	3147.9	3056.4	2950.9	2810.2	2648.5
17.5°	3524.8	3543.1	3496.7	3398.2	3315.3	3244.8	3236.4	3160.5	3062.1	2927.0	2748.3
20°	3537.5	3554.3	3505.1	3419.3	3350.4	3294.1	3289.9	3235.0	3163.4	3033.9	2856.7
22.5°	3499.5	3520.6	3475.6	3406.7	3358.8	3329.3	3323.7	3292.7	3251.9	3142.2	2957.9
25°	3460.1	3477.0	3443.2	3382.7	3357.4	3354.6	3358.8	3353.2	3344.8	3251.9	3076.1
27.5°	3457.3	3475.6	3437.5	3379.9	3365.9	3395.4	3399.6	3426.4	3433.3	3351.7	3190.0
30°	3481.2	3493.8	3457.3	3396.7	3389.8	3457.3	3458.7	3506.5	3517.8	3436.2	3302.6
32.5°	3533.3	3547.3	3510.7	3422.1	3412.2	3506.5	3510.7	3574.0	3592.3	3526.2	3420.7
35°	3655.6	3672.5	3630.2	3492.5	3457.3	3553.0	3565.6	3640.1	3676.7	3621.8	3543.1
37.5°	3960.8	3911.6	3853.9	3634.5	3559.9	3626.0	3647.2	3734.4	3799.1	3735.8	3689.4
40°	4718.9	4564.2	4384.2	3876.4	3740.0	3782.1	3799.1	3886.3	3974.8	3913.0	3890.5
42.5°	5856.8	5674.0	5384.2	4433.4	4011.4	4032.6	4045.2	4121.1	4246.4	4197.1	4202.7
45°	6871.0	6804.9	6509.5	5384.2	4519.2	4415.1	4430.6	4470.0	4654.2	4636.0	4672.6
47.5°	7650.2	7612.2	7384.3	6475.7	5377.3	4883.5	4927.1	4945.4	5211.2	5276.0	5374.4
50°	8249.4	8235.3	8031.4	7446.2	6498.2	5574.2	5589.6	5550.2	5948.3	6108.6	6295.7
52.5°	8814.8	8862.6	8712.1	8347.8	7695.2	6478.5	6475.7	6290.0	6827.3	7069.2	7388.5
55°	9325.3	9342.3	9357.7	9267.7	8899.2	7508.1	7481.4	7177.6	7847.1	8097.5	8443.4
57.5°	9804.9	9812.0	9949.9	10134.1	10152.4	8613.7	8564.4	8200.1	8961.1	9139.7	9352.1
60°	10127.1	10159.4	10450.6	10962.6	11186.2	9754.3	9727.7	9356.3	10094.7	10177.7	10138.4
62.5°	9662.9	9859.9	10594.1	11609.6	12162.3	11018.9	11006.1	10657.3	11287.5	11220.0	10882.4
65°	7821.8	8155.1	9446.3	12047.0	13120.2	12431.0	12449.2	12078.0	12512.6	12293.1	11487.2
67.5°	5471.4	5823.0	7350.6	12082.2	14190.6	14089.3	14194.8	13612.5	13813.6	13321.3	11630.7
70°	3783.6	3965.0	4959.5	11325.4	15024.7	16373.6	16370.7	15497.3	15107.7	13789.7	10899.2
72.5°	2544.5	2638.7	3221.0	8984.9	14411.4	17730.9	17649.3	16937.5	15543.7	12896.6	8904.8
75°	1073.2	1142.2	1491.0	5049.5	11401.4	16221.6	16000.8	14968.4	13810.8	10155.2	5555.8
77.5°	340.4	369.9	587.9	1807.4	6280.2	12193.3	11959.8	9347.9	9256.5	5094.5	2031.0
80°	161.7	188.5	330.6	725.8	2471.3	6631.9	6599.5	4240.7	3981.9	1375.6	407.8
82.5°	70.3	83.0	182.9	388.2	1105.6	2365.8	2413.7	1443.1	1194.1	521.8	125.2
85°	22.5	29.5	84.4	178.7	467.0	587.9	580.9	343.2	481.0	284.1	43.6
87.5°	0.0	0.0	28.1	40.8	47.9	33.7	38.0	29.5	133.7	78.7	15.5
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°	2257.5	2257.5	2257.5	2257.5	2257.5	2257.5	2257.5	2257.5	2257.5	2257.5	2257.5
2.5°	2268.7	2246.3	2206.8	2170.3	2137.9	2105.6	2085.9	2057.8	2054.9	2054.9	2062.0
5°	2284.2	2247.6	2177.3	2102.8	2017.0	1935.4	1853.8	1775.1	1749.8	1731.4	1739.9
7.5°	2329.2	2271.6	2160.5	2018.4	1855.2	1676.6	1551.4	1416.3	1364.4	1336.2	1340.4
10°	2393.9	2315.2	2146.4	1897.4	1633.0	1389.7	1211.0	1064.8	1008.5	984.6	984.6
12.5°	2465.6	2368.6	2121.0	1746.9	1389.7	1098.5	924.1	856.6	848.2	848.2	848.2
15°	2551.4	2433.4	2077.5	1569.7	1135.1	869.2	807.4	810.2	818.6	824.2	824.2
17.5°	2640.1	2502.2	2008.6	1371.3	910.0	782.1	783.4	787.7	794.7	800.3	800.3
20°	2735.7	2571.1	1917.2	1160.4	780.6	756.8	761.0	765.2	770.8	773.6	775.0
22.5°	2838.4	2635.9	1808.8	953.7	737.1	735.6	737.1	741.3	748.2	748.2	751.1
25°	2948.1	2707.6	1685.0	803.1	714.5	714.5	717.3	720.2	725.8	725.8	727.1
27.5°	3060.6	2773.6	1554.2	724.4	694.8	693.4	693.4	697.6	700.5	701.8	703.3
30°	3184.4	2851.0	1423.4	707.5	679.4	672.3	668.1	671.0	673.7	675.2	677.9
32.5°	3311.0	2925.6	1306.7	714.5	663.9	651.2	637.1	634.4	634.4	640.0	644.2
35°	3451.7	3007.1	1216.7	738.4	655.5	620.3	597.8	585.1	586.5	595.0	599.2
37.5°	3620.4	3105.6	1150.6	759.5	649.8	585.1	548.6	533.1	523.3	533.1	530.2
40°	3841.3	3250.5	1102.7	776.4	642.8	544.4	495.1	469.8	451.5	457.2	454.3
42.5°	4166.2	3478.3	1084.4	777.8	627.3	496.5	440.2	406.5	379.8	381.2	375.6
45°	4621.9	3838.4	1178.6	759.5	593.6	444.4	382.5	337.5	320.7	316.5	310.9
47.5°	5246.4	4363.1	1396.7	721.6	544.4	393.8	326.4	288.3	275.7	268.7	264.4
50°	6083.3	5036.8	1638.7	679.4	495.1	346.0	279.9	255.9	247.5	240.6	239.1
52.5°	7053.8	5720.4	1836.9	637.1	445.9	303.8	250.4	236.3	229.3	223.7	222.2
55°	7944.2	6191.6	1825.7	592.1	398.0	270.1	229.3	220.8	212.4	206.7	204.0
57.5°	8498.3	6257.7	1505.0	542.9	343.2	243.3	209.6	204.0	194.1	187.1	185.6
60°	8752.9	5880.7	1054.9	478.3	288.3	218.0	188.5	185.6	173.0	163.2	160.3
62.5°	8799.3	5180.2	703.3	398.0	240.6	194.1	167.4	163.2	146.3	129.4	121.0
65°	8610.8	4178.8	486.7	310.9	205.3	168.8	143.5	135.0	116.7	99.8	94.2
67.5°	8014.5	2934.1	339.0	223.7	174.5	133.7	114.0	111.1	97.1	83.0	78.7
70°	6921.6	1672.4	226.4	167.4	137.9	91.4	90.0	92.9	78.7	67.5	61.9
72.5°	5306.8	765.2	140.6	122.4	94.2	61.9	71.8	73.2	60.5	50.6	45.0
75°	3123.9	327.7	88.7	78.7	47.9	40.8	52.1	53.4	40.8	32.4	28.1
77.5°	1063.3	123.8	56.3	46.4	23.9	22.5	33.7	33.7	22.5	12.7	9.8
80°	241.9	46.4	28.1	18.2	11.3	9.8	11.3	9.8	5.6	1.4	0.0
82.5°	68.9	18.2	11.3	7.1	4.2	4.2	1.4	0.0	0.0	0.0	0.0
85°	19.7	8.4	2.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	8.4	1.4	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)