

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: P883468

Luminaire Tested: **NAV-SB3D-827-U-T3-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P883468  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB3D-827-U-T3-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(3) 80 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

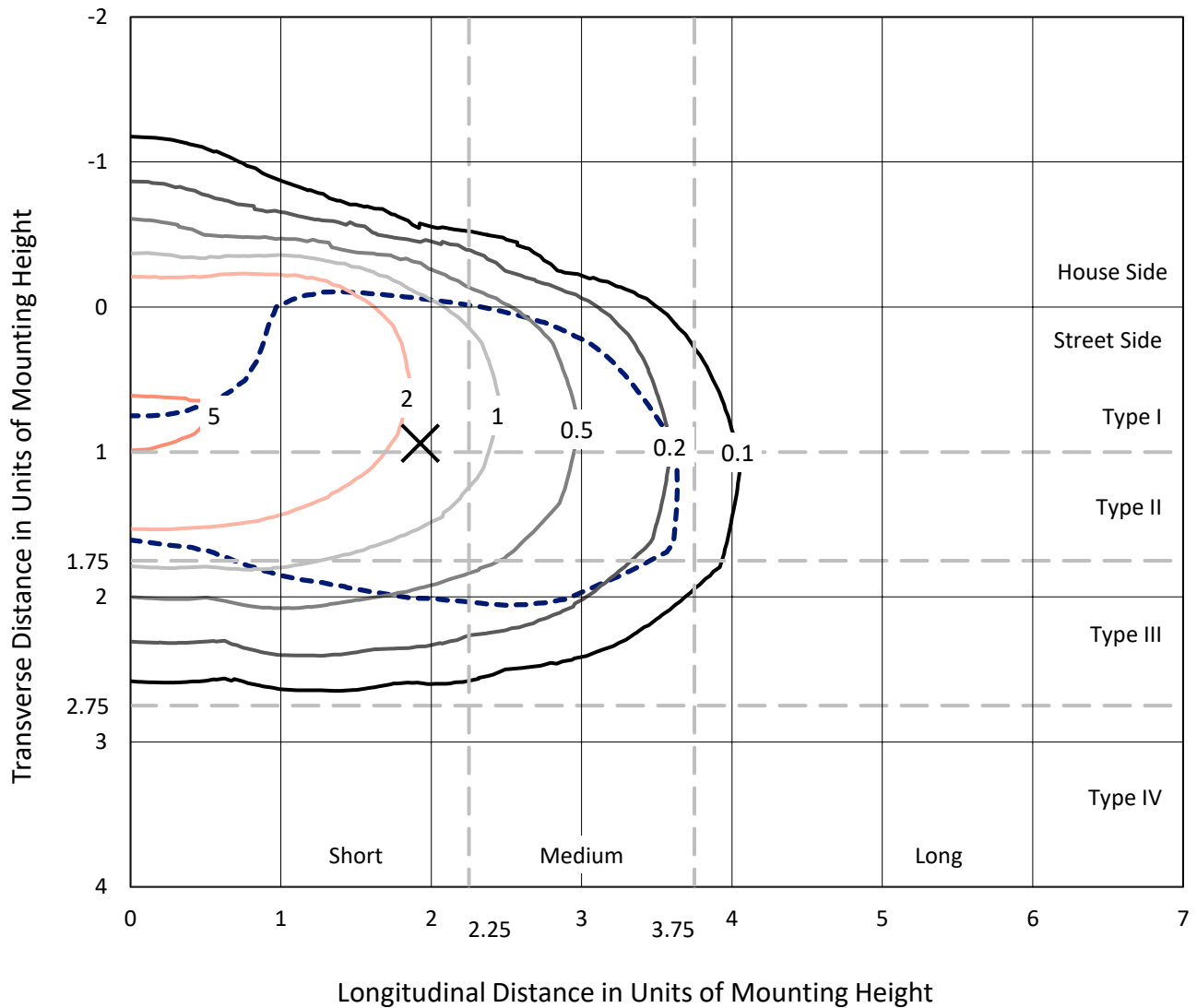
Lumens per Lamp: N/A  
Luminaire Lumens: 19450 lumens  
Efficiency: N/A  
Efficacy: 89.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 218.1  
Input Voltage (V): 120.0  
Input Current (Ain): 1.84  
Voltage Rise (V): NR  
Power Factor: 0.998  
Total Harmonic Distortion (THDi): 2.542  
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

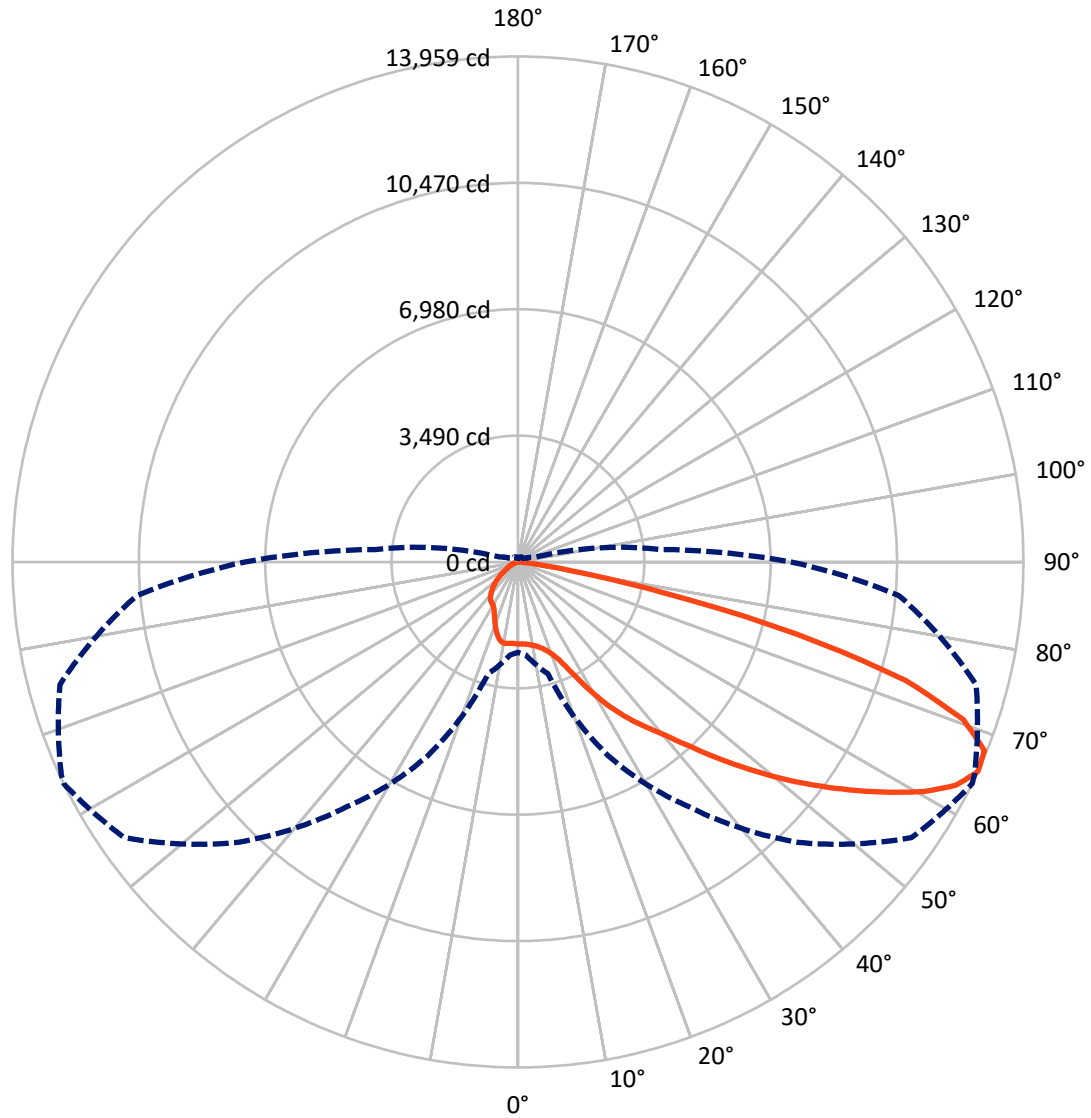
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.7 fc  
 Type III - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2601.1	0.0	2601.1
	% Fixture	13.4	0.0	13.4
<b>Street Side</b>	Lumens	16848.9	0.0	16848.9
	% Fixture	86.6	0.0	86.6
<b>Total</b>	Lumens	19450.0	0.0	19450.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	208.7	1.1
10°-20°	566.1	2.9
20°-30°	1072.7	5.5
30°-40°	2170.6	11.2
40°-50°	3697.7	19.0
50°-60°	5028.6	25.9
60°-70°	4722.1	24.3
70°-80°	1891.9	9.7
80°-90°	91.7	0.5
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°	19450.0	100.0
0°-180°	19450.0	100.0

**Coefficient of Utilization**



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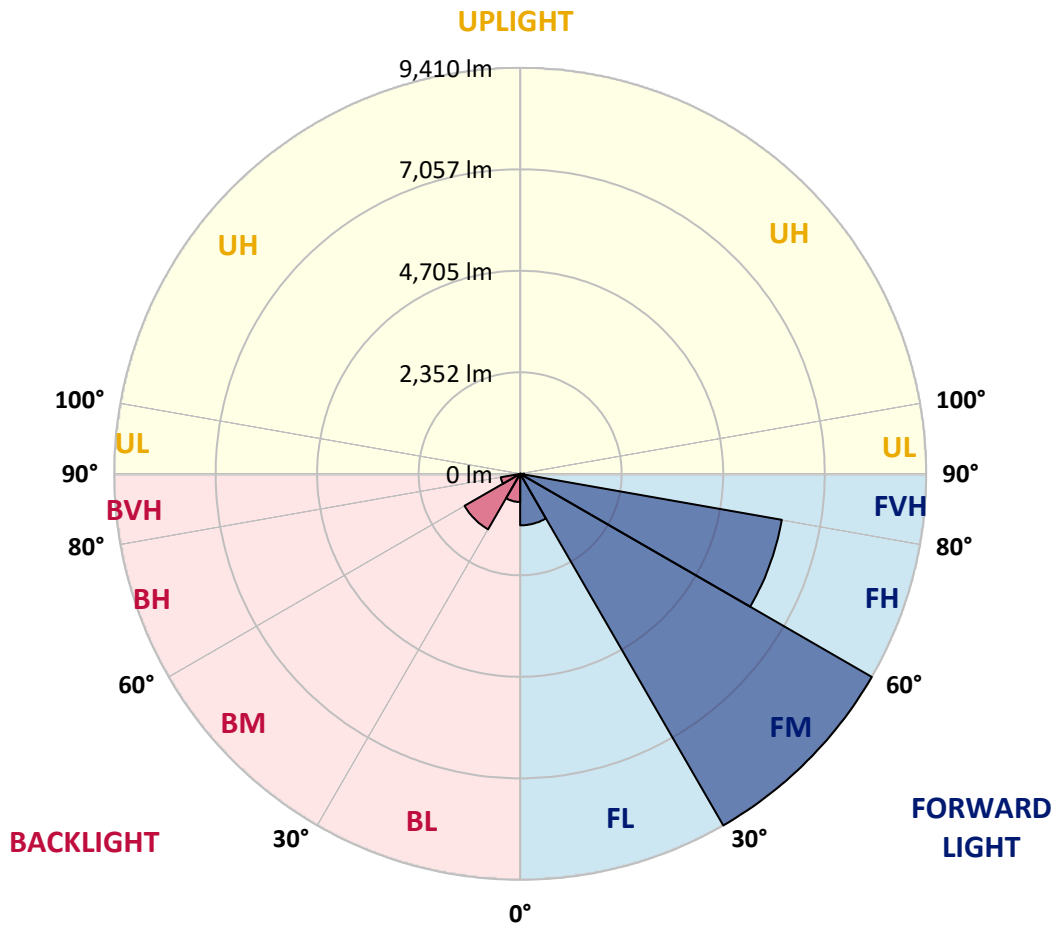
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1194.5	6.1			
FM (30°-60°)	9409.9	48.4			
FH (60°-80°)	6157.4	31.7			G3/7500
FVH (80°-90°)	87.2	0.4			G1/100
BL (0°-30°)	653.0	3.4	B2/1000		
BM (30°-60°)	1487.0	7.6	B2/2500		
BH (60°-80°)	456.5	2.3	B1/500		G1/500
BVH (80°-90°)	4.5	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-G3**

Type III Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	2262.2	2262.2	2262.2	2262.2	2262.2	2262.2	2262.2	2262.2	2262.2	2262.2	2262.2
2.5°	2254.4	2270.1	2266.1	2262.2	2260.9	2263.5	2264.8	2263.5	2263.5	2263.5	2264.8
5°	2211.4	2224.4	2224.4	2233.6	2246.6	2262.2	2274.0	2276.6	2279.2	2283.1	2281.8
7.5°	2129.2	2139.7	2147.5	2177.5	2210.1	2251.8	2287.0	2305.3	2307.9	2322.2	2327.4
10°	2073.2	2086.2	2099.3	2130.5	2177.5	2240.1	2300.0	2344.4	2350.9	2384.8	2400.4
12.5°	2070.6	2083.6	2100.6	2134.5	2189.2	2255.7	2328.7	2392.6	2404.4	2453.9	2486.5
15°	2097.9	2113.6	2129.2	2171.0	2229.6	2310.5	2388.7	2468.3	2480.0	2550.4	2585.6
17.5°	2154.0	2174.9	2186.6	2228.3	2290.9	2380.9	2483.9	2575.2	2585.6	2667.7	2712.1
20°	2264.8	2289.6	2293.5	2327.4	2388.7	2485.2	2607.8	2721.2	2734.2	2828.1	2877.7
22.5°	2494.3	2529.5	2498.2	2515.2	2570.0	2666.4	2799.4	2942.9	2961.1	3068.0	3112.4
25°	2898.5	2948.1	2867.2	2838.6	2862.0	2962.4	3129.3	3310.6	3331.4	3417.5	3439.6
27.5°	3692.6	3628.7	3506.1	3386.2	3315.8	3373.1	3560.9	3785.2	3811.2	3894.7	3868.6
30°	4564.9	4508.8	4343.2	4077.2	3910.3	3901.2	4074.6	4325.0	4355.0	4434.5	4355.0
32.5°	5438.5	5385.0	5205.1	4877.8	4588.4	4444.9	4564.9	4842.6	4858.3	4909.1	4791.8
35°	6297.8	6243.0	6063.1	5728.0	5372.0	5046.0	5022.6	5335.5	5340.7	5394.2	5219.4
37.5°	7162.2	7116.6	6924.9	6596.3	6245.6	5795.8	5578.0	5802.3	5808.8	5861.0	5679.7
40°	7779.0	7798.5	7666.8	7412.6	7111.4	6619.8	6201.3	6299.1	6259.9	6347.3	6239.1
42.5°	8308.3	8347.5	8232.7	8104.9	7930.2	7497.3	6973.2	6956.2	6893.6	6940.6	6828.4
45°	8766.0	8798.6	8695.6	8665.6	8661.7	8357.9	7816.8	7715.1	7627.7	7618.6	7484.3
47.5°	8934.2	8996.8	9041.1	9141.5	9337.1	9209.3	8689.1	8531.3	8433.5	8361.8	8149.3
50°	8998.1	9064.6	9215.8	9507.9	9970.8	10025.6	9557.5	9380.1	9260.2	9129.8	8816.9
52.5°	8912.0	9030.7	9234.1	9725.7	10397.2	10680.1	10390.6	10235.5	10098.6	9886.0	9421.9
55°	8404.8	8523.5	8939.4	9723.1	10609.7	11139.1	11178.2	11109.1	10955.2	10620.1	9910.8
57.5°	7335.6	7511.7	8170.1	9391.9	10605.8	11534.1	11950.1	11999.6	11827.5	11347.7	10295.5
60°	5854.4	6093.0	6896.2	8657.8	10278.5	11748.0	12626.8	12874.5	12692.0	12064.8	10607.1
62.5°	4085.1	4361.5	5121.7	7507.8	9530.1	11594.1	13121.0	13578.6	13440.4	12706.3	10727.0
65°	2491.7	2580.4	3193.2	5907.9	8257.5	10950.0	13273.5	13959.4	13913.7	13098.8	10549.7
67.5°	1659.8	1734.2	1910.2	4051.2	6409.9	9663.1	12908.4	13892.9	13905.9	13034.9	9900.4
70°	1000.1	1064.0	1178.7	2356.1	4154.2	7648.6	11778.0	13045.3	13121.0	12180.9	8669.5
72.5°	412.0	455.1	559.4	1067.9	2151.4	4854.4	9378.8	11200.4	11376.4	10242.0	6653.7
75°	233.4	255.6	328.6	535.9	933.6	2262.2	5681.0	7951.1	8210.6	7059.2	4002.9
77.5°	155.2	165.6	212.5	346.8	525.5	771.9	2427.8	4142.4	4637.9	3855.6	1732.9
80°	104.3	113.4	146.0	232.1	341.6	331.2	773.2	1534.7	1888.0	1324.7	422.5
82.5°	70.4	71.7	104.3	152.6	216.4	160.4	228.2	477.2	599.8	383.3	160.4
85°	40.4	39.1	76.9	88.7	96.5	66.5	69.1	143.4	187.8	161.7	91.3
87.5°	5.2	7.8	30.0	23.5	13.0	14.3	14.3	24.8	36.5	39.1	19.6
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°	2262.2	2262.2	2262.2	2262.2	2262.2	2262.2	2262.2	2262.2	2262.2	2262.2	2262.2
2.5°	2264.8	2263.5	2259.6	2255.7	2246.6	2241.4	2244.0	2241.4	2240.1	2241.4	2246.6
5°	2281.8	2277.9	2267.5	2254.4	2236.2	2214.0	2199.7	2178.8	2159.2	2147.5	2150.1
7.5°	2327.4	2323.5	2309.2	2272.7	2214.0	2121.4	2036.7	1962.3	1906.3	1873.7	1875.0
10°	2400.4	2393.9	2371.8	2290.9	2137.1	1935.0	1766.8	1627.2	1536.0	1492.9	1489.0
12.5°	2486.5	2478.7	2439.6	2274.0	1991.0	1675.5	1443.4	1288.2	1203.5	1165.7	1161.8
15°	2588.2	2577.8	2500.8	2193.1	1778.5	1388.6	1176.1	1060.1	1005.3	971.4	972.7
17.5°	2714.7	2696.4	2546.5	2071.9	1547.7	1169.6	1011.8	924.5	876.2	843.6	841.0
20°	2879.0	2849.0	2583.0	1927.1	1335.2	1031.4	901.0	828.0	791.5	762.8	757.6
22.5°	3108.5	3065.4	2627.3	1770.7	1185.2	936.2	818.8	765.4	735.4	702.8	697.6
25°	3392.7	3341.9	2682.1	1625.9	1082.2	854.0	758.9	714.5	679.3	641.5	637.6
27.5°	3790.4	3699.1	2747.3	1507.3	993.6	783.6	704.1	654.5	614.1	582.8	576.3
30°	4233.7	4083.8	2804.7	1435.6	912.7	718.4	632.4	582.8	545.0	522.9	518.9
32.5°	4653.6	4450.2	2842.5	1404.3	839.7	644.1	554.2	500.7	472.0	465.5	469.4
35°	5049.9	4781.3	2838.6	1374.3	774.5	569.8	477.2	422.5	400.3	404.2	404.2
37.5°	5506.3	5134.7	2811.2	1327.4	721.0	502.0	410.7	362.5	342.9	344.2	349.4
40°	6037.0	5542.8	2794.2	1238.7	662.4	439.4	356.0	316.8	302.5	297.3	296.0
42.5°	6602.9	5937.9	2796.8	1138.3	589.4	383.3	318.1	285.6	272.5	268.6	267.3
45°	7171.4	6314.7	2800.7	1034.0	512.4	340.3	290.8	263.4	255.6	250.3	250.3
47.5°	7705.9	6635.5	2727.7	921.8	436.8	307.7	268.6	250.3	243.8	237.3	237.3
50°	8204.0	6849.3	2551.7	791.5	376.8	281.6	251.6	238.6	232.1	225.6	225.6
52.5°	8591.3	6883.2	2260.9	657.2	335.1	262.1	241.2	229.5	221.7	215.1	213.8
55°	8763.4	6670.7	1847.6	532.0	302.5	245.1	230.8	219.1	209.9	203.4	202.1
57.5°	8719.1	6223.4	1440.8	427.7	271.2	228.2	217.7	209.9	199.5	189.1	187.8
60°	8501.3	5625.0	1086.1	356.0	242.5	209.9	203.4	196.9	182.5	166.9	164.3
62.5°	8124.5	4872.6	774.5	294.7	211.2	189.1	186.5	181.2	160.4	131.7	129.1
65°	7548.2	3958.6	521.6	245.1	181.2	165.6	166.9	157.8	130.4	97.8	95.2
67.5°	6705.9	2894.6	333.8	200.8	151.3	138.2	139.5	134.3	110.8	83.4	79.5
70°	5632.8	1916.7	217.7	152.6	121.3	106.9	114.7	116.0	93.9	67.8	65.2
72.5°	4129.4	1131.8	152.6	113.4	88.7	74.3	93.9	96.5	75.6	50.9	48.2
75°	2353.5	537.2	114.7	82.1	54.8	52.2	73.0	73.0	52.2	33.9	31.3
77.5°	988.3	224.3	80.8	53.5	31.3	30.0	49.5	45.6	26.1	15.6	15.6
80°	285.6	100.4	43.0	26.1	13.0	11.7	19.6	14.3	6.5	2.6	2.6
82.5°	112.1	44.3	17.0	10.4	5.2	5.2	2.6	0.0	0.0	0.0	0.0
85°	66.5	18.3	7.8	3.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	17.0	3.9	2.6	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)