

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: P883768

Luminaire Tested: **NAV-SB4B-735-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883768
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-SB4B-735-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3500K, 450mA 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: 17898 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

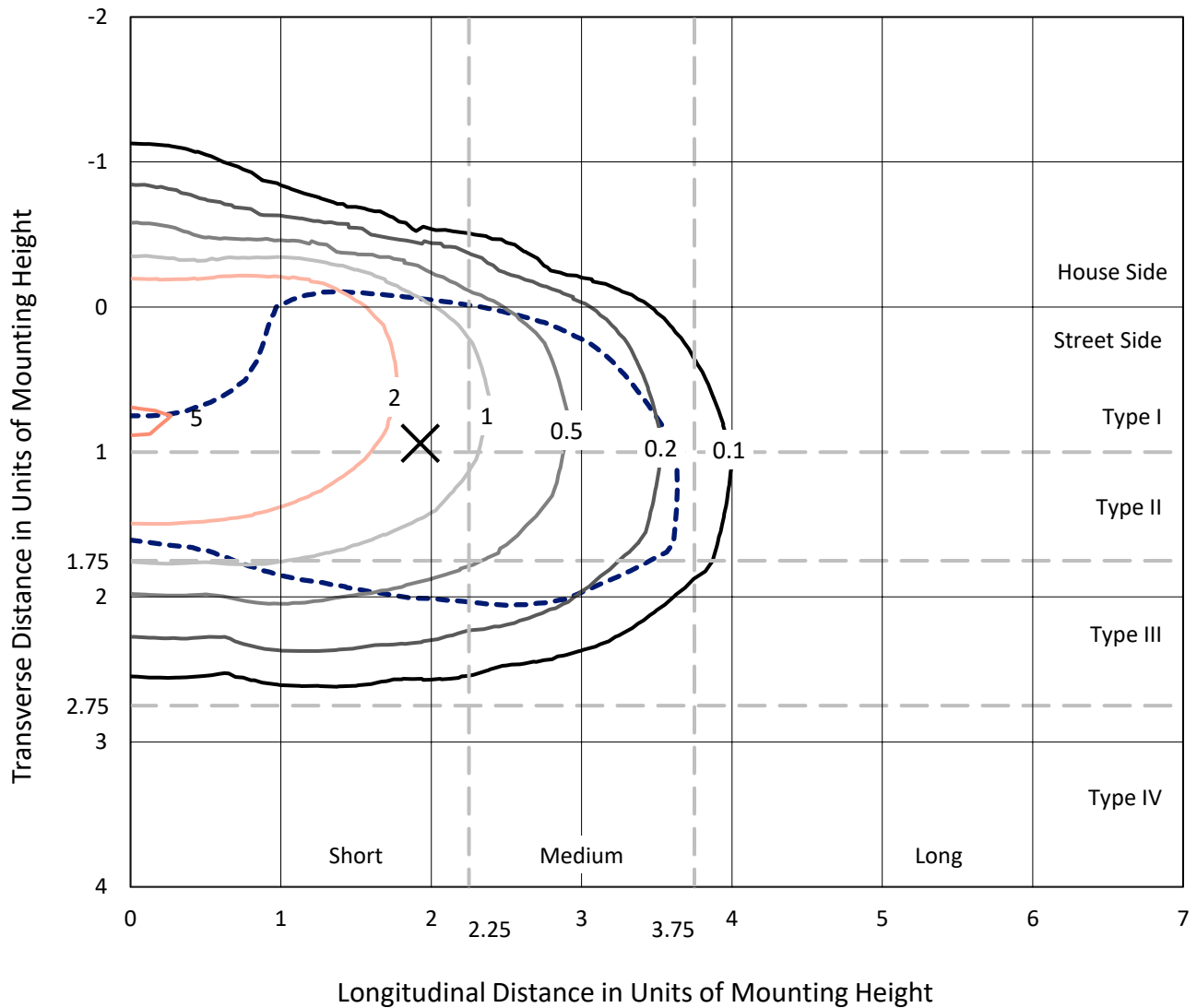
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

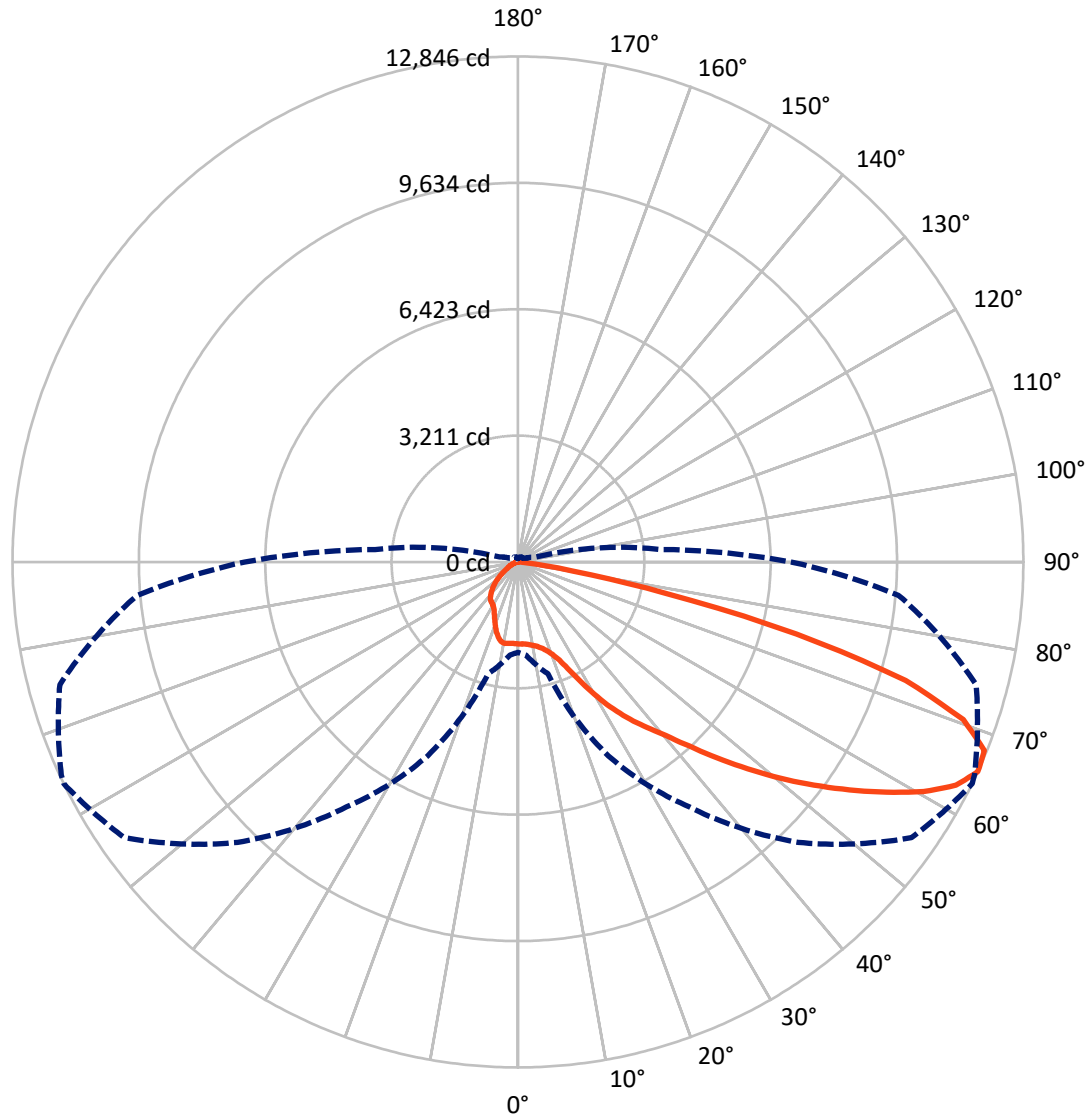
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 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
House Side	Lumens	2393.5	0.0	2393.5
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	15504.5	0.0	15504.5
	% Fixture	86.6	0.0	86.6
Total	Lumens	17898.0	0.0	17898.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.1	1.1
10°-20°	520.9	2.9
20°-30°	987.1	5.5
30°-40°	1997.4	11.2
40°-50°	3402.6	19.0
50°-60°	4627.3	25.9
60°-70°	4345.3	24.3
70°-80°	1740.9	9.7
80°-90°	84.3	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°	17898.0	100.0
0°-180°	17898.0	100.0

Coefficient of Utilization



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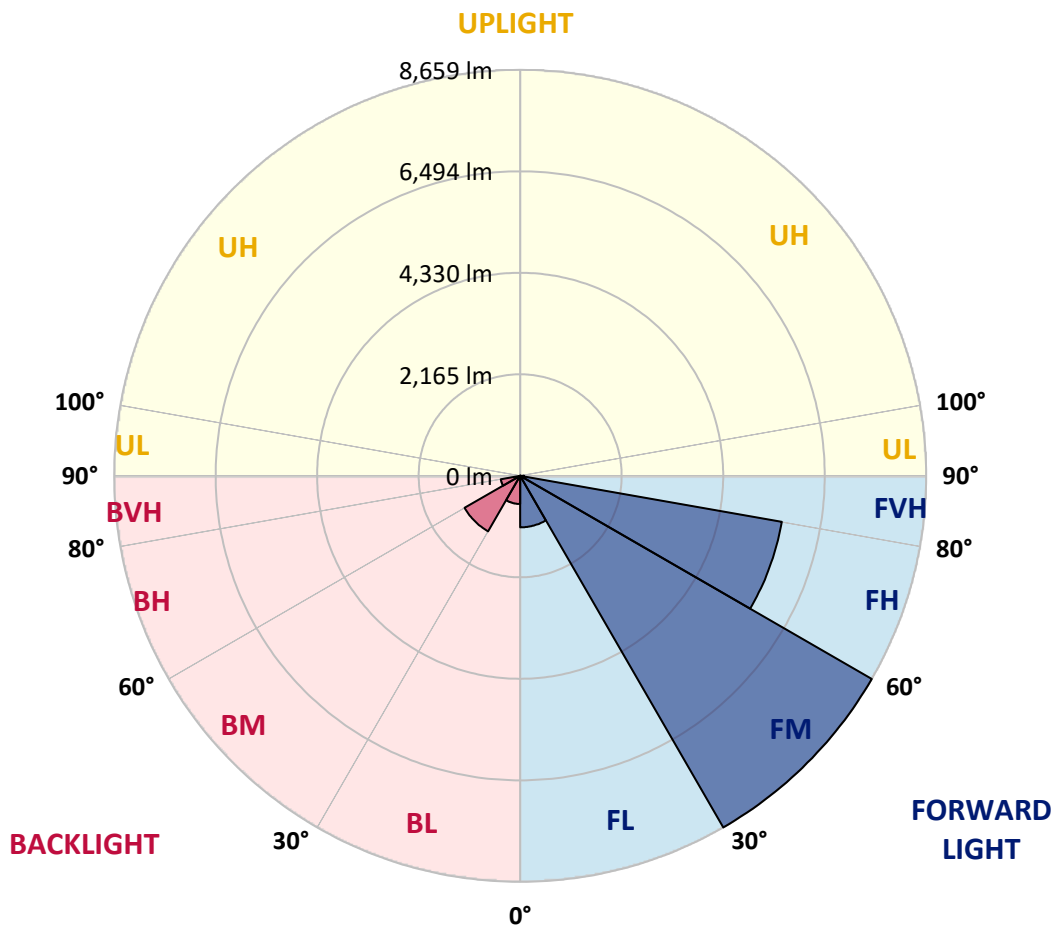
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1099.1	6.1			
FM (30°-60°)	8659.0	48.4			
FH (60°-80°)	5666.1	31.7			G3/7500
FVH (80°-90°)	80.2	0.4			G1/100
BL (0°-30°)	600.9	3.4	B2/1000		
BM (30°-60°)	1368.4	7.6	B2/2500		
BH (60°-80°)	420.1	2.3	B1/500		G1/500
BVH (80°-90°)	4.1	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°	2081.7	2081.7	2081.7	2081.7	2081.7	2081.7	2081.7	2081.7	2081.7	2081.7	2081.7
2.5°	2074.5	2088.9	2085.3	2081.7	2080.5	2082.9	2084.1	2082.9	2082.9	2082.9	2084.1
5°	2034.9	2046.9	2046.9	2055.3	2067.3	2081.7	2092.5	2094.9	2097.3	2100.9	2099.7
7.5°	1959.3	1968.9	1976.1	2003.7	2033.7	2072.1	2104.5	2121.3	2123.7	2136.9	2141.7
10°	1907.7	1919.7	1931.7	1960.5	2003.7	2061.3	2116.5	2157.3	2163.3	2194.5	2208.9
12.5°	1905.3	1917.3	1932.9	1964.1	2014.5	2075.7	2142.9	2201.7	2212.5	2258.1	2288.1
15°	1930.5	1944.9	1959.3	1997.7	2051.7	2126.1	2198.1	2271.3	2282.1	2346.9	2379.3
17.5°	1982.1	2001.3	2012.1	2050.5	2108.1	2190.9	2285.7	2369.7	2379.3	2454.9	2495.7
20°	2084.1	2106.9	2110.5	2141.7	2198.1	2286.9	2399.7	2504.1	2516.1	2602.5	2648.0
22.5°	2295.3	2327.7	2298.9	2314.5	2364.9	2453.7	2576.1	2708.0	2724.8	2823.2	2864.0
25°	2667.2	2712.8	2638.4	2612.1	2633.6	2726.0	2879.6	3046.4	3065.6	3144.8	3165.2
27.5°	3397.9	3339.2	3226.4	3116.0	3051.2	3104.0	3276.8	3483.1	3507.1	3583.9	3559.9
30°	4200.6	4149.0	3996.7	3751.9	3598.3	3589.9	3749.5	3979.9	4007.5	4080.7	4007.5
32.5°	5004.5	4955.3	4789.8	4488.6	4222.2	4090.3	4200.6	4456.2	4470.6	4517.4	4409.4
35°	5795.2	5744.8	5579.3	5270.9	4943.3	4643.4	4621.8	4909.7	4914.5	4963.7	4803.0
37.5°	6590.7	6548.7	6372.4	6070.0	5747.2	5333.3	5132.9	5339.3	5345.3	5393.3	5226.5
40°	7158.2	7176.2	7055.1	6821.1	6543.9	6091.6	5706.4	5796.4	5760.4	5840.8	5741.2
42.5°	7645.4	7681.4	7575.8	7458.2	7297.4	6899.1	6416.7	6401.1	6343.6	6386.8	6283.6
45°	8066.5	8096.5	8001.7	7974.1	7970.5	7691.0	7193.0	7099.5	7019.1	7010.7	6887.1
47.5°	8221.3	8278.9	8319.7	8412.1	8592.1	8474.5	7995.7	7850.6	7760.6	7694.6	7499.0
50°	8280.1	8341.3	8480.5	8749.2	9175.2	9225.6	8794.8	8631.7	8521.3	8401.3	8113.3
52.5°	8200.9	8310.1	8497.3	8949.6	9567.5	9827.9	9561.5	9418.7	9292.8	9097.2	8670.0
55°	7734.2	7843.4	8226.1	8947.2	9763.1	10250.2	10286.2	10222.6	10081.1	9772.7	9120.0
57.5°	6750.3	6912.3	7518.2	8642.5	9759.5	10613.8	10996.5	11042.1	10883.8	10442.2	9473.9
60°	5387.3	5606.9	6346.0	7966.9	9458.3	10810.6	11619.3	11847.2	11679.2	11102.1	9760.7
62.5°	3759.1	4013.5	4713.0	6908.7	8769.6	10669.0	12074.0	12495.1	12368.0	11692.4	9871.1
65°	2292.9	2374.5	2938.4	5436.5	7598.6	10076.3	12214.4	12845.5	12803.5	12053.6	9707.9
67.5°	1527.4	1595.8	1757.8	3727.9	5898.4	8892.0	11878.4	12784.3	12796.3	11994.8	9110.4
70°	920.3	979.1	1084.7	2168.1	3822.7	7038.3	10838.2	12004.4	12074.0	11208.9	7977.7
72.5°	379.1	418.7	514.7	982.7	1979.7	4467.0	8630.5	10306.6	10468.6	9424.7	6122.8
75°	214.8	235.2	302.4	493.1	859.1	2081.7	5227.7	7316.6	7555.4	6495.9	3683.5
77.5°	142.8	152.4	195.6	319.2	483.5	710.3	2234.1	3811.9	4267.8	3547.9	1594.6
80°	96.0	104.4	134.4	213.6	314.4	304.8	711.5	1412.2	1737.4	1219.0	388.7
82.5°	64.8	66.0	96.0	140.4	199.2	147.6	210.0	439.1	551.9	352.8	147.6
85°	37.2	36.0	70.8	81.6	88.8	61.2	63.6	132.0	172.8	148.8	84.0
87.5°	4.8	7.2	27.6	21.6	12.0	13.2	13.2	22.8	33.6	36.0	18.0
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°	2081.7	2081.7	2081.7	2081.7	2081.7	2081.7	2081.7	2081.7	2081.7	2081.7	2081.7
2.5°	2084.1	2082.9	2079.3	2075.7	2067.3	2062.5	2064.9	2062.5	2061.3	2062.5	2067.3
5°	2099.7	2096.1	2086.5	2074.5	2057.7	2037.3	2024.1	2004.9	1986.9	1976.1	1978.5
7.5°	2141.7	2138.1	2124.9	2091.3	2037.3	1952.1	1874.2	1805.8	1754.2	1724.2	1725.4
10°	2208.9	2202.9	2182.5	2108.1	1966.5	1780.6	1625.8	1497.4	1413.4	1373.8	1370.2
12.5°	2288.1	2280.9	2244.9	2092.5	1832.2	1541.8	1328.2	1185.4	1107.5	1072.7	1069.1
15°	2381.7	2372.1	2301.3	2018.1	1636.6	1277.8	1082.3	975.5	925.1	893.9	895.1
17.5°	2498.1	2481.3	2343.3	1906.5	1424.2	1076.3	931.1	850.7	806.3	776.3	773.9
20°	2649.2	2621.7	2376.9	1773.4	1228.6	949.1	829.1	761.9	728.3	701.9	697.1
22.5°	2860.4	2820.8	2417.7	1629.4	1090.7	861.5	753.5	704.3	676.7	646.7	641.9
25°	3122.0	3075.2	2468.1	1496.2	995.9	785.9	698.3	657.5	625.1	590.3	586.7
27.5°	3487.9	3403.9	2528.1	1387.0	914.3	721.1	647.9	602.3	565.1	536.3	530.3
30°	3895.9	3757.9	2580.9	1321.0	839.9	661.1	581.9	536.3	501.5	481.1	477.5
32.5°	4282.2	4095.1	2615.7	1292.2	772.7	592.7	509.9	460.7	434.3	428.3	431.9
35°	4647.0	4399.8	2612.1	1264.6	712.7	524.3	439.1	388.7	368.4	372.0	372.0
37.5°	5066.9	4725.0	2586.9	1221.4	663.5	461.9	377.9	333.6	315.6	316.8	321.6
40°	5555.3	5100.5	2571.3	1139.8	609.5	404.3	327.6	291.6	278.4	273.6	272.4
42.5°	6076.0	5464.1	2573.7	1047.5	542.3	352.8	292.8	262.8	250.8	247.2	246.0
45°	6599.1	5810.8	2577.3	951.5	471.5	313.2	267.6	242.4	235.2	230.4	230.4
47.5°	7091.1	6106.0	2510.1	848.3	401.9	283.2	247.2	230.4	224.4	218.4	218.4
50°	7549.4	6302.8	2348.1	728.3	346.8	259.2	231.6	219.6	213.6	207.6	207.6
52.5°	7905.7	6334.0	2080.5	604.7	308.4	241.2	222.0	211.2	204.0	198.0	196.8
55°	8064.1	6138.4	1700.2	489.5	278.4	225.6	212.4	201.6	193.2	187.2	186.0
57.5°	8023.3	5726.8	1325.8	393.5	249.6	210.0	200.4	193.2	183.6	174.0	172.8
60°	7823.0	5176.1	999.5	327.6	223.2	193.2	187.2	181.2	168.0	153.6	151.2
62.5°	7476.2	4483.8	712.7	271.2	194.4	174.0	171.6	166.8	147.6	121.2	118.8
65°	6945.9	3642.7	479.9	225.6	166.8	152.4	153.6	145.2	120.0	90.0	87.6
67.5°	6170.8	2663.6	307.2	184.8	139.2	127.2	128.4	123.6	102.0	76.8	73.2
70°	5183.3	1763.8	200.4	140.4	111.6	98.4	105.6	106.8	86.4	62.4	60.0
72.5°	3799.9	1041.5	140.4	104.4	81.6	68.4	86.4	88.8	69.6	46.8	44.4
75°	2165.7	494.3	105.6	75.6	50.4	48.0	67.2	67.2	48.0	31.2	28.8
77.5°	909.5	206.4	74.4	49.2	28.8	27.6	45.6	42.0	24.0	14.4	14.4
80°	262.8	92.4	39.6	24.0	12.0	10.8	18.0	13.2	6.0	2.4	2.4
82.5°	103.2	40.8	15.6	9.6	4.8	4.8	2.4	0.0	0.0	0.0	0.0
85°	61.2	16.8	7.2	3.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	15.6	3.6	2.4	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)