

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: P883758

Luminaire Tested: **NAV-SB4B-730-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883758
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-730-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 3000K, 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: 17618 lumens
Efficiency: N/A
Efficacy: 119.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

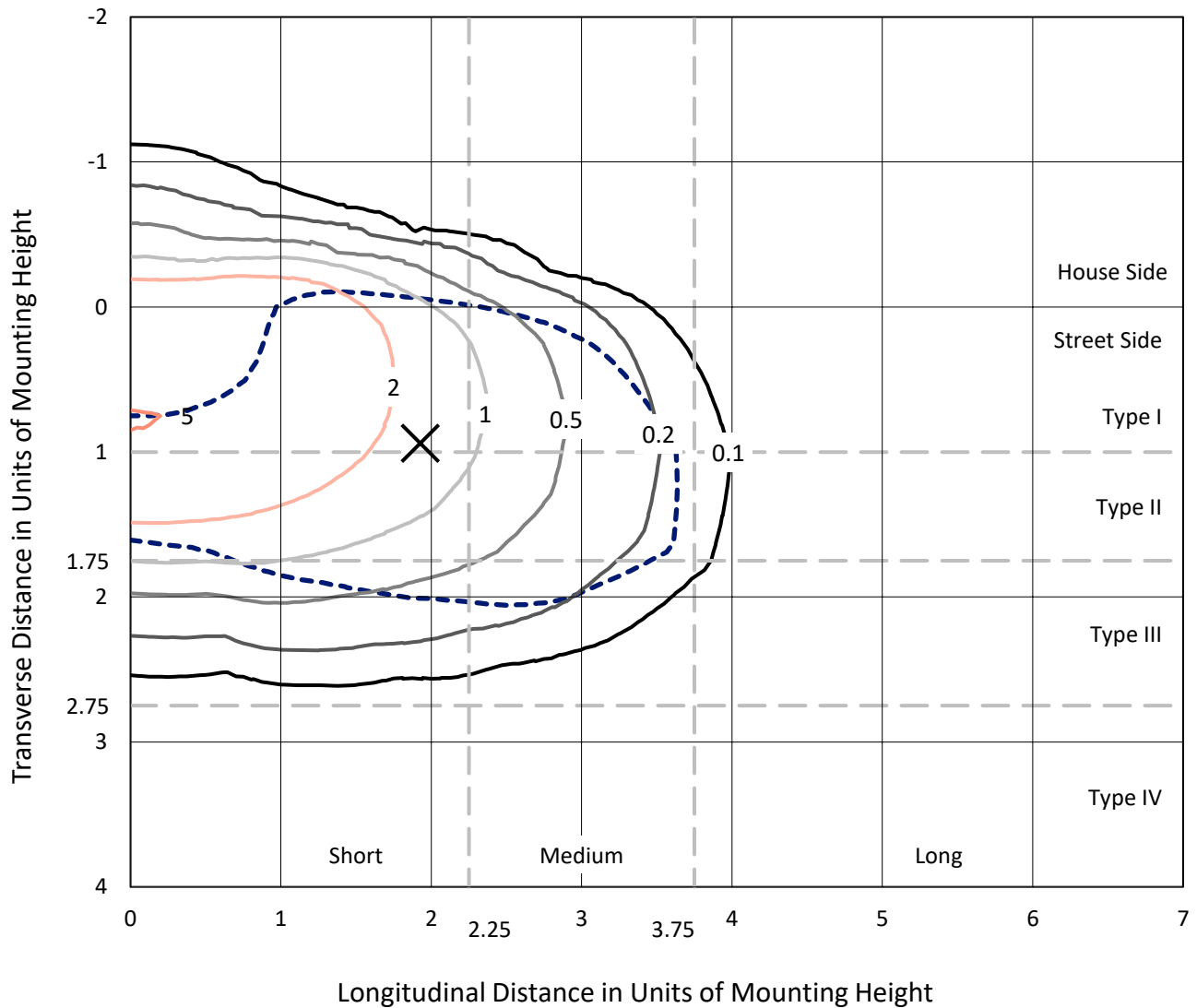
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

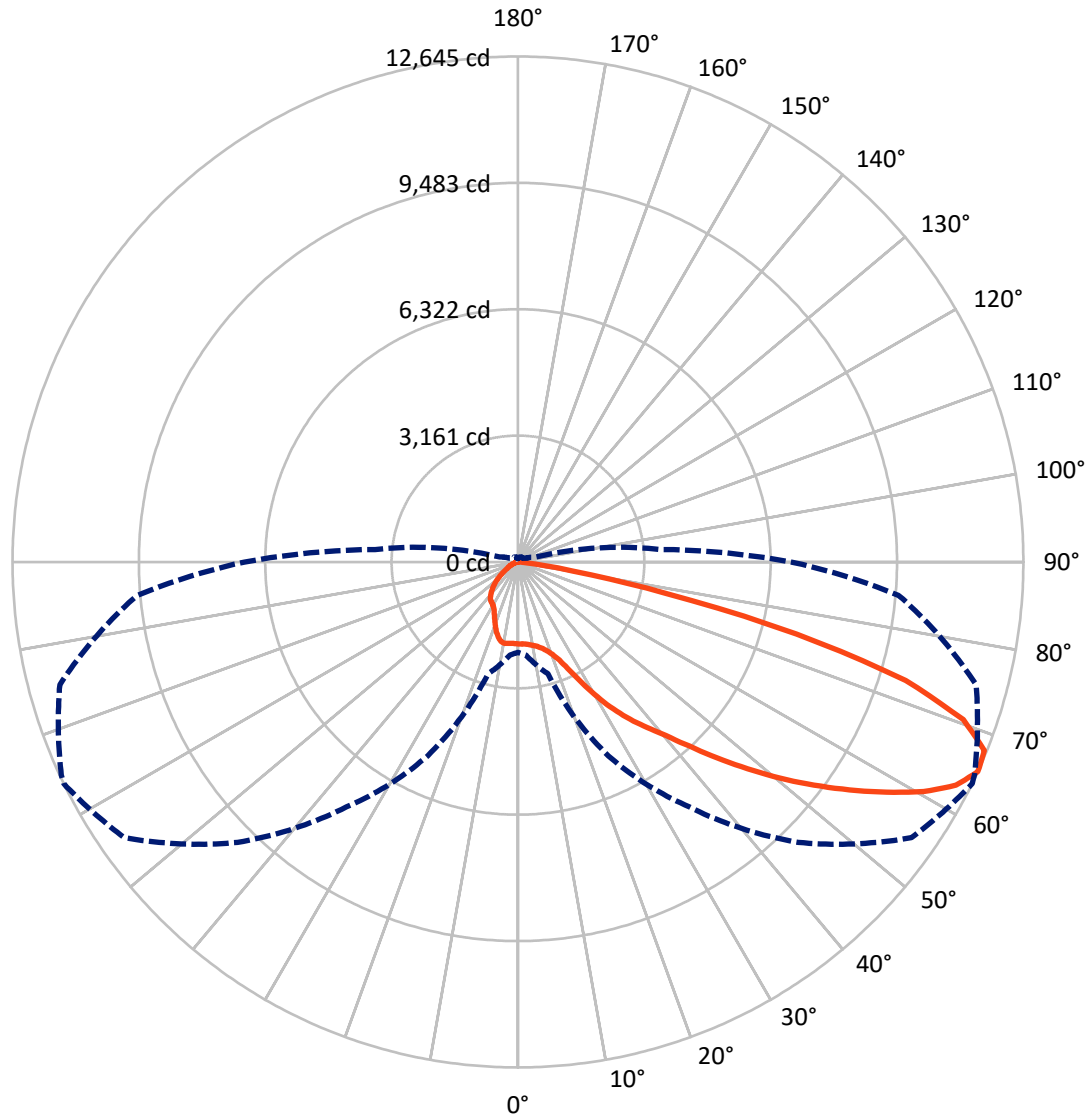
✕ Max cd
 - - - 1/2 Max cd



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	2356.1	0.0	2356.1
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	15261.9	0.0	15261.9
	% Fixture	86.6	0.0	86.6
Total	Lumens	17618.0	0.0	17618.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.1	1.1
10°-20°	512.8	2.9
20°-30°	971.7	5.5
30°-40°	1966.2	11.2
40°-50°	3349.4	19.0
50°-60°	4554.9	25.9
60°-70°	4277.3	24.3
70°-80°	1713.7	9.7
80°-90°	83.0	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°	17618.0	100.0
0°-180°	17618.0	100.0

Coefficient of Utilization



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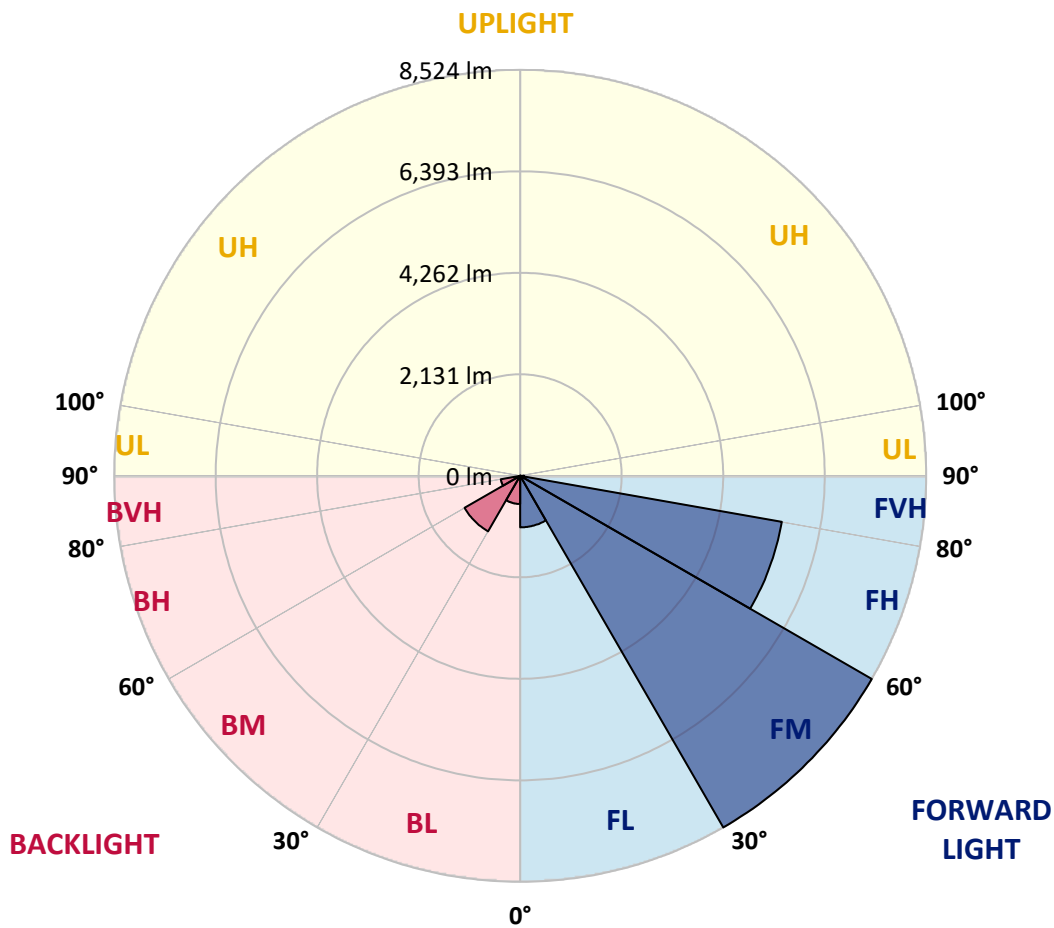
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1081.9	6.1			
FM (30°-60°)	8523.6	48.4			
FH (60°-80°)	5577.5	31.7			G3/7500
FVH (80°-90°)	79.0	0.4			G1/100
BL (0°-30°)	591.5	3.4	B2/1000		
BM (30°-60°)	1346.9	7.6	B2/2500		
BH (60°-80°)	413.5	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°	2049.2	2049.2	2049.2	2049.2	2049.2	2049.2	2049.2	2049.2	2049.2	2049.2	2049.2
2.5°	2042.1	2056.2	2052.7	2049.2	2048.0	2050.3	2051.5	2050.3	2050.3	2050.3	2051.5
5°	2003.1	2014.9	2014.9	2023.2	2035.0	2049.2	2059.8	2062.1	2064.5	2068.1	2066.9
7.5°	1928.7	1938.1	1945.2	1972.4	2001.9	2039.7	2071.6	2088.1	2090.5	2103.5	2108.2
10°	1877.9	1889.7	1901.5	1929.9	1972.4	2029.1	2083.4	2123.6	2129.5	2160.2	2174.3
12.5°	1875.5	1887.3	1902.7	1933.4	1983.0	2043.3	2109.4	2167.3	2177.9	2222.8	2252.3
15°	1900.3	1914.5	1928.7	1966.5	2019.6	2092.9	2163.7	2235.8	2246.4	2310.2	2342.1
17.5°	1951.1	1970.0	1980.7	2018.4	2075.1	2156.6	2249.9	2332.6	2342.1	2416.5	2456.6
20°	2051.5	2074.0	2077.5	2108.2	2163.7	2251.1	2362.1	2464.9	2476.7	2561.7	2606.6
22.5°	2259.4	2291.3	2262.9	2278.3	2327.9	2415.3	2535.8	2665.7	2682.2	2779.1	2819.2
25°	2625.5	2670.4	2597.2	2571.2	2592.4	2683.4	2834.6	2998.7	3017.6	3095.6	3115.7
27.5°	3344.8	3286.9	3175.9	3067.2	3003.5	3055.4	3225.5	3428.6	3452.3	3527.9	3504.2
30°	4134.9	4084.1	3934.1	3693.2	3542.0	3533.8	3690.8	3917.6	3944.8	4016.8	3944.8
32.5°	4926.2	4877.8	4714.8	4418.4	4156.2	4026.3	4134.9	4386.5	4400.7	4446.7	4340.4
35°	5704.6	5655.0	5492.0	5188.4	4866.0	4570.7	4549.5	4832.9	4837.7	4886.1	4727.8
37.5°	6487.6	6446.3	6272.7	5975.0	5657.3	5249.9	5052.6	5255.8	5261.7	5308.9	5144.7
40°	7046.3	7064.0	6944.7	6714.4	6441.6	5996.3	5617.2	5705.7	5670.3	5749.4	5651.4
42.5°	7525.8	7561.2	7457.3	7341.5	7183.3	6791.2	6316.4	6301.0	6244.3	6286.8	6185.3
45°	7940.3	7969.9	7876.6	7849.4	7845.8	7570.7	7080.5	6988.4	6909.3	6901.0	6779.3
47.5°	8092.7	8149.4	8189.5	8280.5	8457.6	8341.9	7870.7	7727.7	7639.2	7574.2	7381.7
50°	8150.6	8210.8	8347.8	8612.4	9031.6	9081.2	8657.2	8496.6	8388.0	8269.9	7986.4
52.5°	8072.6	8180.1	8364.3	8809.6	9417.9	9674.1	9411.9	9271.4	9147.4	8954.9	8534.4
55°	7613.2	7720.7	8097.4	8807.2	9610.4	10089.9	10125.3	10062.7	9923.3	9619.8	8977.3
57.5°	6644.7	6804.1	7400.6	8507.2	9606.8	10447.7	10824.5	10869.4	10713.5	10278.9	9325.7
60°	5303.0	5519.1	6246.7	7842.3	9310.4	10641.4	11437.5	11661.9	11496.5	10928.4	9608.0
62.5°	3700.3	3950.7	4639.2	6800.6	8632.4	10502.1	11885.1	12299.7	12174.5	11509.5	9716.7
65°	2257.0	2337.3	2892.4	5351.4	7479.7	9918.6	12023.3	12644.5	12603.2	11865.0	9556.0
67.5°	1503.5	1570.8	1730.3	3669.6	5806.1	8752.9	11692.6	12584.3	12596.1	11807.2	8967.9
70°	905.9	963.8	1067.7	2134.2	3762.9	6928.2	10668.6	11816.6	11885.1	11033.6	7852.9
72.5°	373.2	412.2	506.7	967.3	1948.8	4397.1	8495.4	10145.4	10304.8	9277.3	6027.0
75°	211.4	231.5	297.6	485.4	845.6	2049.2	5145.9	7202.2	7437.2	6394.3	3625.9
77.5°	140.5	150.0	192.5	314.2	476.0	699.2	2199.2	3752.3	4201.1	3492.4	1569.6
80°	94.5	102.8	132.3	210.2	309.4	300.0	700.4	1390.1	1710.2	1200.0	382.7
82.5°	63.8	65.0	94.5	138.2	196.1	145.3	206.7	432.3	543.3	347.2	145.3
85°	36.6	35.4	69.7	80.3	87.4	60.2	62.6	129.9	170.1	146.5	82.7
87.5°	4.7	7.1	27.2	21.3	11.8	13.0	13.0	22.4	33.1	35.4	17.7
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°	2049.2	2049.2	2049.2	2049.2	2049.2	2049.2	2049.2	2049.2	2049.2	2049.2	2049.2
2.5°	2051.5	2050.3	2046.8	2043.3	2035.0	2030.3	2032.6	2030.3	2029.1	2030.3	2035.0
5°	2066.9	2063.3	2053.9	2042.1	2025.5	2005.5	1992.5	1973.6	1955.9	1945.2	1947.6
7.5°	2108.2	2104.7	2091.7	2058.6	2005.5	1921.6	1844.8	1777.5	1726.7	1697.2	1698.4
10°	2174.3	2168.4	2148.4	2075.1	1935.8	1752.7	1600.3	1474.0	1391.3	1352.3	1348.8
12.5°	2252.3	2245.2	2209.8	2059.8	1803.5	1517.7	1307.4	1166.9	1090.1	1055.9	1052.3
15°	2344.4	2335.0	2265.3	1986.6	1611.0	1257.8	1065.3	960.2	910.6	879.9	881.1
17.5°	2459.0	2442.5	2306.6	1876.7	1401.9	1059.4	916.5	837.4	793.7	764.2	761.8
20°	2607.8	2580.6	2339.7	1745.6	1209.4	934.2	816.1	750.0	716.9	690.9	686.2
22.5°	2815.7	2776.7	2379.9	1603.9	1073.6	848.0	741.7	693.3	666.1	636.6	631.9
25°	3073.1	3027.1	2429.5	1472.8	980.3	773.6	687.4	647.2	615.3	581.1	577.5
27.5°	3433.4	3350.7	2488.5	1365.3	900.0	709.8	637.8	592.9	556.3	527.9	522.0
30°	3834.9	3699.1	2540.5	1300.4	826.7	650.8	572.8	527.9	493.7	473.6	470.1
32.5°	4215.2	4031.0	2574.7	1272.0	760.6	583.4	502.0	453.5	427.5	421.6	425.2
35°	4574.3	4331.0	2571.2	1244.8	701.6	516.1	432.3	382.7	362.6	366.1	366.1
37.5°	4987.7	4651.1	2546.4	1202.3	653.1	454.7	372.0	328.3	310.6	311.8	316.5
40°	5468.4	5020.7	2531.0	1122.0	600.0	398.0	322.4	287.0	274.0	269.3	268.1
42.5°	5980.9	5378.6	2533.4	1031.1	533.8	347.2	288.2	258.7	246.8	243.3	242.1
45°	6495.9	5719.9	2536.9	936.6	464.2	308.3	263.4	238.6	231.5	226.8	226.8
47.5°	6980.1	6010.5	2470.8	835.0	395.7	278.7	243.3	226.8	220.9	215.0	215.0
50°	7431.3	6204.2	2311.4	716.9	341.3	255.1	227.9	216.1	210.2	204.3	204.3
52.5°	7782.1	6234.9	2048.0	595.3	303.5	237.4	218.5	207.9	200.8	194.9	193.7
55°	7938.0	6042.4	1673.6	481.9	274.0	222.0	209.0	198.4	190.2	184.2	183.1
57.5°	7897.8	5637.2	1305.1	387.4	245.7	206.7	197.2	190.2	180.7	171.3	170.1
60°	7700.6	5095.1	983.8	322.4	219.7	190.2	184.2	178.3	165.3	151.2	148.8
62.5°	7359.2	4413.7	701.6	266.9	191.3	171.3	168.9	164.2	145.3	119.3	116.9
65°	6837.2	3585.7	472.4	222.0	164.2	150.0	151.2	142.9	118.1	88.6	86.2
67.5°	6074.2	2622.0	302.4	181.9	137.0	125.2	126.4	121.7	100.4	75.6	72.0
70°	5102.2	1736.2	197.2	138.2	109.8	96.8	103.9	105.1	85.0	61.4	59.1
72.5°	3740.4	1025.2	138.2	102.8	80.3	67.3	85.0	87.4	68.5	46.1	43.7
75°	2131.8	486.6	103.9	74.4	49.6	47.2	66.1	66.1	47.2	30.7	28.3
77.5°	895.3	203.1	73.2	48.4	28.3	27.2	44.9	41.3	23.6	14.2	14.2
80°	258.7	90.9	39.0	23.6	11.8	10.6	17.7	13.0	5.9	2.4	2.4
82.5°	101.6	40.2	15.4	9.4	4.7	4.7	2.4	0.0	0.0	0.0	0.0
85°	60.2	16.5	7.1	3.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	15.4	3.5	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)