

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: P884488

Luminaire Tested: **NAV-SB5B-827-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884488
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-SB5B-827-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 2700K, 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: 18208 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G3

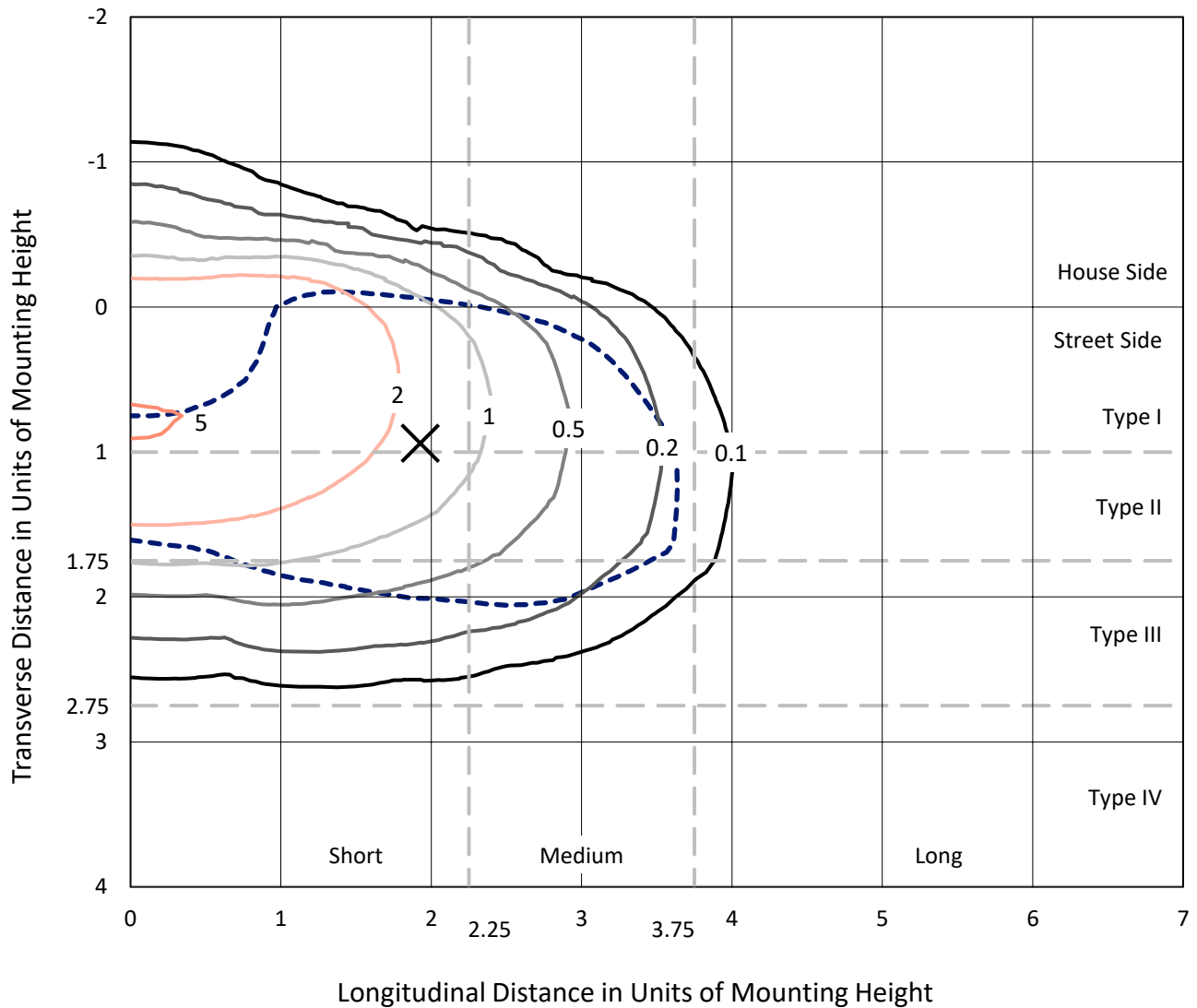
Input Watts (W): 182.7
Input Voltage (V): 120.0
Input Current (Ain): 1.547
Voltage Rise (V): NR
Power Factor: 0.992
Total Harmonic Distortion (THDi): 11.125
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

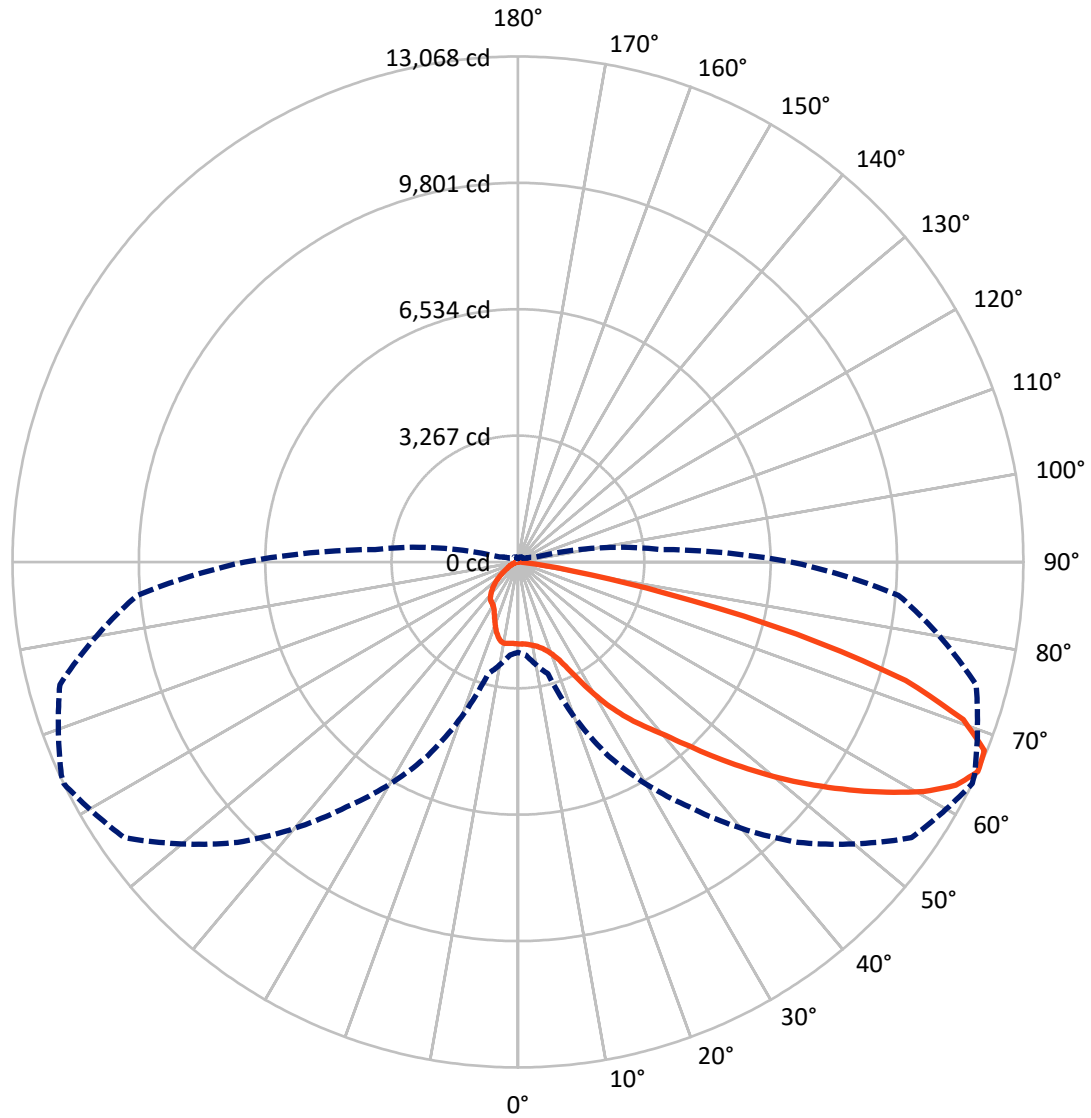
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 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	2435.0	0.0	2435.0
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	15773.0	0.0	15773.0
	% Fixture	86.6	0.0	86.6
Total	Lumens	18208.0	0.0	18208.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.4	1.1
10°-20°	529.9	2.9
20°-30°	1004.2	5.5
30°-40°	2032.0	11.2
40°-50°	3461.6	19.0
50°-60°	4707.5	25.9
60°-70°	4420.6	24.3
70°-80°	1771.1	9.7
80°-90°	85.8	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°	18208.0	100.0
0°-180°	18208.0	100.0

Coefficient of Utilization



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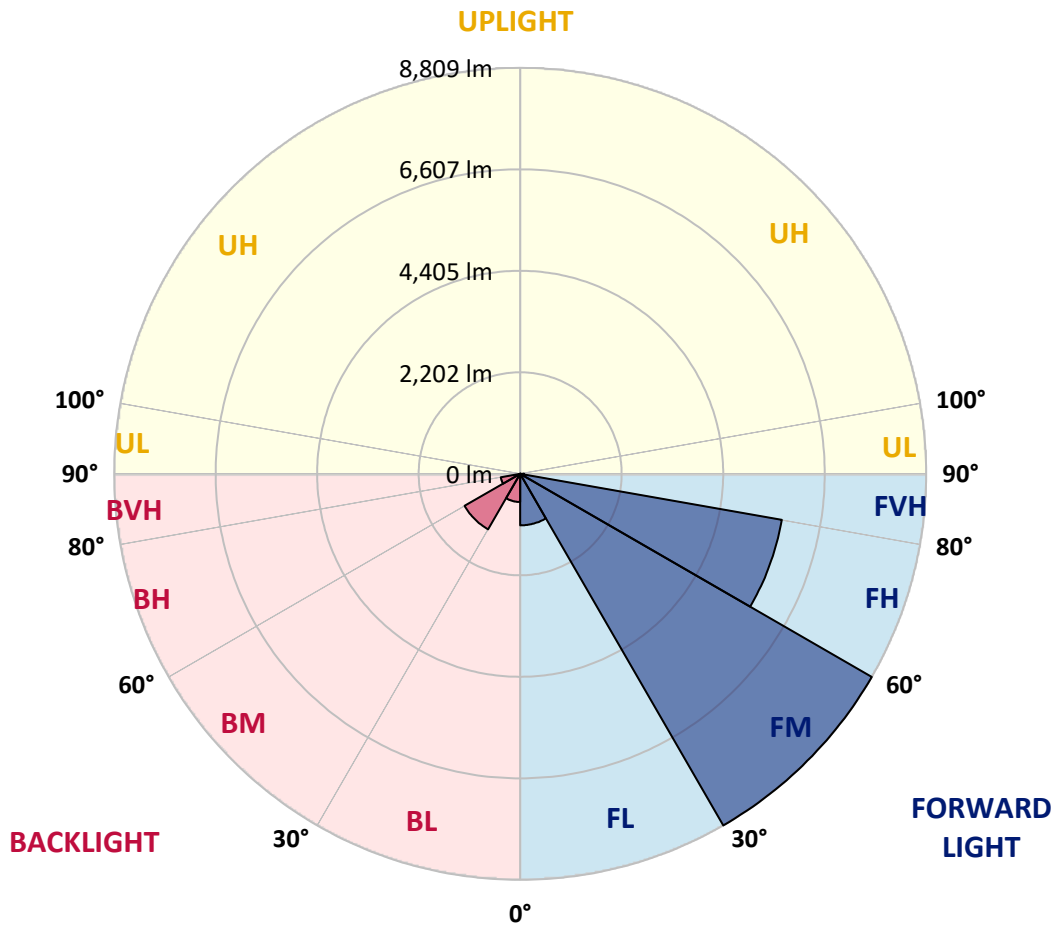
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1118.2	6.1			
FM (30°-60°)	8809.0	48.4			
FH (60°-80°)	5764.2	31.7			G3/7500
FVH (80°-90°)	81.6	0.4			G1/100
BL (0°-30°)	611.3	3.4	B2/1000		
BM (30°-60°)	1392.1	7.6	B2/2500		
BH (60°-80°)	427.4	2.3	B1/500		G1/500
BVH (80°-90°)	4.2	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°	2117.8	2117.8	2117.8	2117.8	2117.8	2117.8	2117.8	2117.8	2117.8	2117.8	2117.8
2.5°	2110.5	2125.1	2121.4	2117.8	2116.6	2119.0	2120.2	2119.0	2119.0	2119.0	2120.2
5°	2070.2	2082.4	2082.4	2090.9	2103.1	2117.8	2128.8	2131.2	2133.6	2137.3	2136.1
7.5°	1993.3	2003.0	2010.4	2038.4	2069.0	2108.0	2141.0	2158.1	2160.5	2173.9	2178.8
10°	1940.8	1953.0	1965.2	1994.5	2038.4	2097.0	2153.2	2194.7	2200.8	2232.5	2247.2
12.5°	1938.3	1950.6	1966.4	1998.2	2049.4	2111.7	2180.0	2239.8	2250.8	2297.2	2327.7
15°	1964.0	1978.6	1993.3	2032.3	2087.3	2162.9	2236.2	2310.6	2321.6	2387.5	2420.5
17.5°	2016.5	2036.0	2047.0	2086.0	2144.6	2228.9	2325.3	2410.7	2420.5	2497.4	2538.9
20°	2120.2	2143.4	2147.1	2178.8	2236.2	2326.5	2441.2	2547.4	2559.6	2647.5	2693.9
22.5°	2335.1	2368.0	2338.7	2354.6	2405.8	2496.2	2620.7	2754.9	2772.0	2872.1	2913.6
25°	2713.4	2759.8	2684.1	2657.3	2679.3	2773.3	2929.5	3099.2	3118.7	3199.3	3220.0
27.5°	3456.8	3397.0	3282.3	3170.0	3104.0	3157.7	3333.5	3543.5	3567.9	3646.0	3621.6
30°	4273.4	4220.9	4065.9	3816.9	3660.6	3652.1	3814.4	4048.8	4076.9	4151.3	4076.9
32.5°	5091.2	5041.2	4872.7	4566.3	4295.4	4161.1	4273.4	4533.4	4548.0	4595.6	4485.8
35°	5895.6	5844.3	5675.9	5362.2	5029.0	4723.8	4701.8	4994.8	4999.7	5049.7	4886.2
37.5°	6704.9	6662.2	6482.7	6175.1	5846.8	5425.7	5221.8	5431.8	5437.9	5486.7	5317.0
40°	7282.2	7300.5	7177.3	6939.2	6657.3	6197.1	5805.3	5896.8	5860.2	5942.0	5840.7
42.5°	7777.8	7814.4	7707.0	7587.4	7423.8	7018.6	6527.9	6512.0	6453.4	6497.4	6392.4
45°	8206.2	8236.8	8140.3	8112.3	8108.6	7824.2	7317.6	7222.4	7140.6	7132.1	7006.4
47.5°	8363.7	8422.3	8463.8	8557.8	8740.9	8621.3	8134.2	7986.5	7895.0	7827.8	7628.9
50°	8423.5	8485.8	8627.4	8900.8	9334.1	9385.4	8947.2	8781.2	8668.9	8546.8	8253.8
52.5°	8343.0	8454.0	8644.4	9104.6	9733.2	9998.1	9727.1	9581.9	9453.7	9254.8	8820.2
55°	7868.1	7979.2	8368.6	9102.2	9932.2	10427.8	10464.4	10399.7	10255.7	9942.0	9277.9
57.5°	6867.2	7032.0	7648.4	8792.1	9928.5	10797.6	11187.0	11233.4	11072.3	10623.1	9638.0
60°	5480.6	5704.0	6455.9	8104.9	9622.2	10997.8	11820.5	12052.4	11881.5	11294.4	9929.8
62.5°	3824.2	4083.0	4794.6	7028.3	8921.5	10853.8	12283.1	12711.6	12582.2	11895.0	10042.1
65°	2332.6	2415.6	2989.3	5530.6	7730.2	10250.8	12425.9	13068.0	13025.3	12262.4	9876.1
67.5°	1553.9	1623.4	1788.2	3792.5	6000.6	9046.0	12084.2	13005.7	13017.9	12202.6	9268.2
70°	936.2	996.0	1103.4	2205.7	3888.9	7160.2	11025.9	12212.3	12283.1	11403.1	8115.9
72.5°	385.7	426.0	523.6	999.7	2014.0	4544.4	8779.9	10485.1	10649.9	9588.0	6228.8
75°	218.5	239.2	307.6	501.7	874.0	2117.8	5318.3	7443.4	7686.3	6608.4	3747.3
77.5°	145.3	155.0	199.0	324.7	491.9	722.6	2272.8	3877.9	4341.8	3609.4	1622.2
80°	97.6	106.2	136.7	217.3	319.8	310.0	723.8	1436.7	1767.5	1240.2	395.5
82.5°	65.9	67.1	97.6	142.8	202.6	150.1	213.6	446.7	561.5	358.9	150.1
85°	37.8	36.6	72.0	83.0	90.3	62.3	64.7	134.3	175.8	151.4	85.4
87.5°	4.9	7.3	28.1	22.0	12.2	13.4	13.4	23.2	34.2	36.6	18.3
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°	2117.8	2117.8	2117.8	2117.8	2117.8	2117.8	2117.8	2117.8	2117.8	2117.8	2117.8
2.5°	2120.2	2119.0	2115.3	2111.7	2103.1	2098.2	2100.7	2098.2	2097.0	2098.2	2103.1
5°	2136.1	2132.4	2122.7	2110.5	2093.4	2072.6	2059.2	2039.7	2021.4	2010.4	2012.8
7.5°	2178.8	2175.1	2161.7	2127.5	2072.6	1986.0	1906.6	1837.0	1784.5	1754.0	1755.3
10°	2247.2	2241.1	2220.3	2144.6	2000.6	1811.4	1653.9	1523.3	1437.9	1397.6	1394.0
12.5°	2327.7	2320.4	2283.8	2128.8	1863.9	1568.5	1351.2	1206.0	1126.6	1091.2	1087.6
15°	2422.9	2413.2	2341.2	2053.1	1664.9	1300.0	1101.0	992.4	941.1	909.4	910.6
17.5°	2541.3	2524.2	2383.9	1939.6	1448.9	1094.9	947.2	865.4	820.3	789.7	787.3
20°	2695.1	2667.1	2418.1	1804.1	1249.9	965.5	843.4	775.1	740.9	714.1	709.2
22.5°	2910.0	2869.7	2459.6	1657.6	1109.5	876.4	766.6	716.5	688.4	657.9	653.0
25°	3176.1	3128.5	2510.8	1522.1	1013.1	799.5	710.4	668.9	635.9	600.5	596.9
27.5°	3548.3	3462.9	2571.9	1411.0	930.1	733.6	659.1	612.8	574.9	545.6	539.5
30°	3963.4	3823.0	2625.6	1343.9	854.4	672.6	592.0	545.6	510.2	489.5	485.8
32.5°	4356.4	4166.0	2661.0	1314.6	786.1	603.0	518.8	468.7	441.9	435.8	439.4
35°	4727.5	4476.0	2657.3	1286.5	725.0	533.4	446.7	395.5	374.7	378.4	378.4
37.5°	5154.7	4806.8	2631.7	1242.6	675.0	469.9	384.5	339.3	321.0	322.2	327.1
40°	5651.5	5188.9	2615.8	1159.6	620.1	411.3	333.2	296.6	283.2	278.3	277.1
42.5°	6181.2	5558.7	2618.2	1065.6	551.7	358.9	297.8	267.3	255.1	251.4	250.2
45°	6713.4	5911.5	2621.9	968.0	479.7	318.6	272.2	246.6	239.2	234.4	234.4
47.5°	7213.9	6211.7	2553.5	863.0	408.9	288.1	251.4	234.4	228.3	222.2	222.2
50°	7680.2	6411.9	2388.8	740.9	352.8	263.7	235.6	223.4	217.3	211.2	211.2
52.5°	8042.7	6443.7	2116.6	615.2	313.7	245.3	225.8	214.8	207.5	201.4	200.2
55°	8203.8	6244.7	1729.6	498.0	283.2	229.5	216.1	205.1	196.5	190.4	189.2
57.5°	8162.3	5826.0	1348.8	400.4	253.9	213.6	203.8	196.5	186.8	177.0	175.8
60°	7958.5	5265.8	1016.8	333.2	227.0	196.5	190.4	184.3	170.9	156.2	153.8
62.5°	7605.7	4561.5	725.0	275.9	197.7	177.0	174.5	169.7	150.1	123.3	120.8
65°	7066.2	3705.8	488.2	229.5	169.7	155.0	156.2	147.7	122.1	91.5	89.1
67.5°	6277.7	2709.8	312.5	188.0	141.6	129.4	130.6	125.7	103.8	78.1	74.5
70°	5273.1	1794.3	203.8	142.8	113.5	100.1	107.4	108.6	87.9	63.5	61.0
72.5°	3865.7	1059.5	142.8	106.2	83.0	69.6	87.9	90.3	70.8	47.6	45.2
75°	2203.2	502.9	107.4	76.9	51.3	48.8	68.4	68.4	48.8	31.7	29.3
77.5°	925.2	209.9	75.7	50.0	29.3	28.1	46.4	42.7	24.4	14.6	14.6
80°	267.3	94.0	40.3	24.4	12.2	11.0	18.3	13.4	6.1	2.4	2.4
82.5°	105.0	41.5	15.9	9.8	4.9	4.9	2.4	0.0	0.0	0.0	0.0
85°	62.3	17.1	7.3	3.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	15.9	3.7	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)