

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: P883127

Luminaire Tested: **NAV-SB3B-827-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883127
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3B-827-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13598 lumens
Efficiency: N/A
Efficacy: 124.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

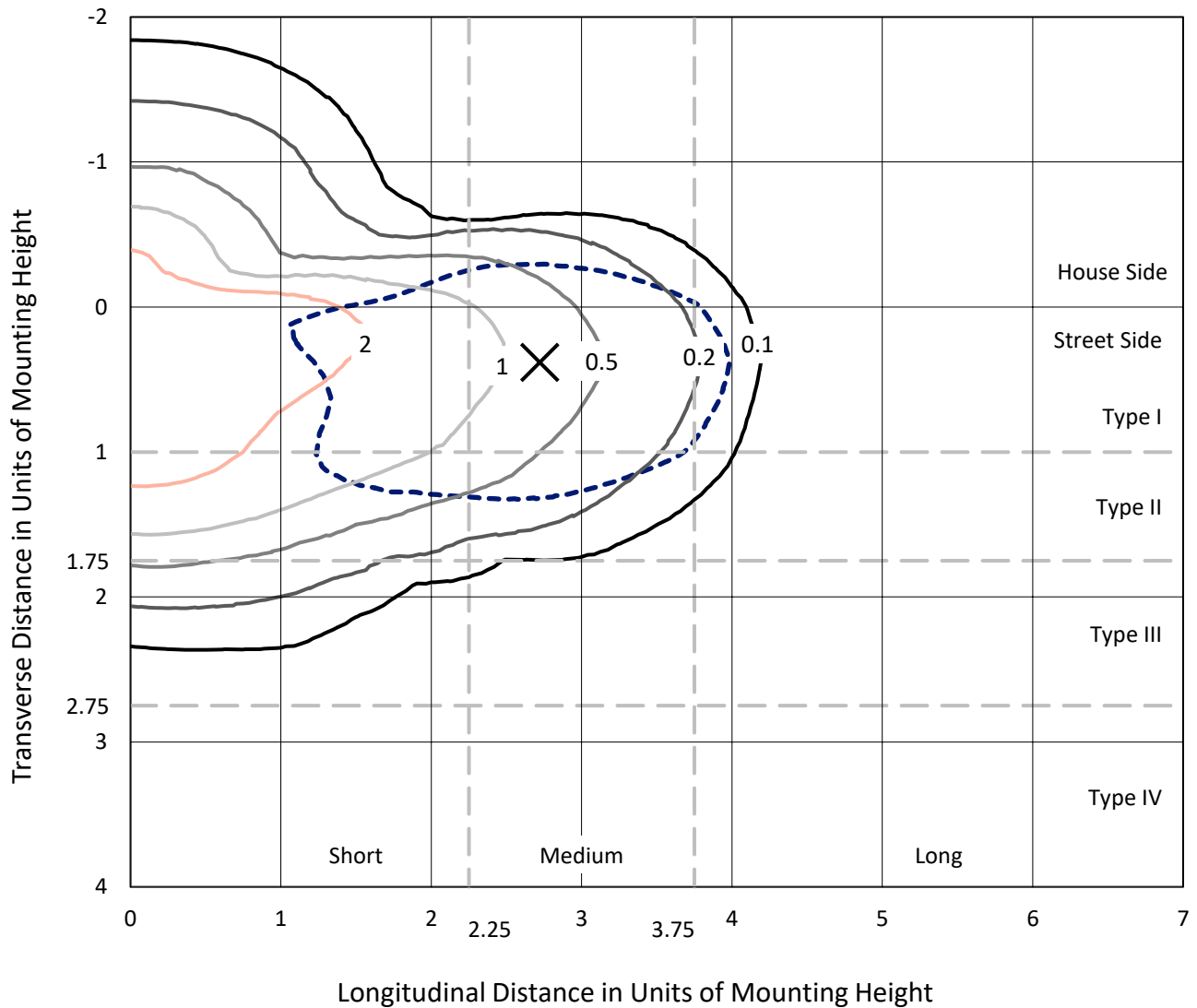
Input Watts (W): 109.2
Input Voltage (V): 120.0
Input Current (Ain): 0.919
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.657
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

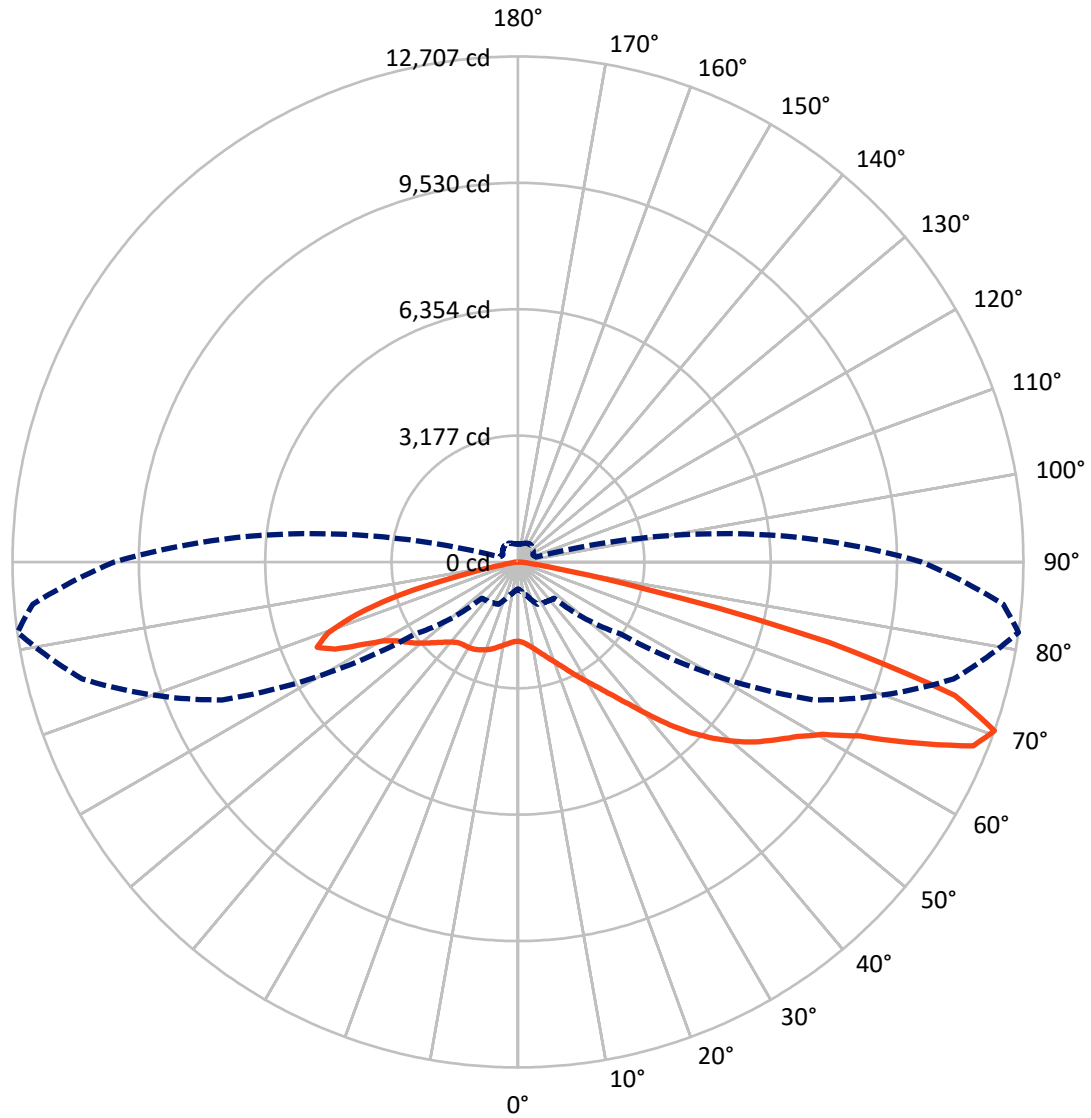
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3352.2	0.0	3352.2
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	10245.8	0.0	10245.8
	% Fixture	75.3	0.0	75.3
Total	Lumens	13598.0	0.0	13598.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.2	1.4
10°-20°	540.8	4.0
20°-30°	904.7	6.7
30°-40°	1413.4	10.4
40°-50°	2251.0	16.6
50°-60°	3132.6	23.0
60°-70°	3276.8	24.1
70°-80°	1712.6	12.6
80°-90°	177.8	1.3
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°	13598.0	100.0
0°-180°	13598.0	100.0

Coefficient of Utilization



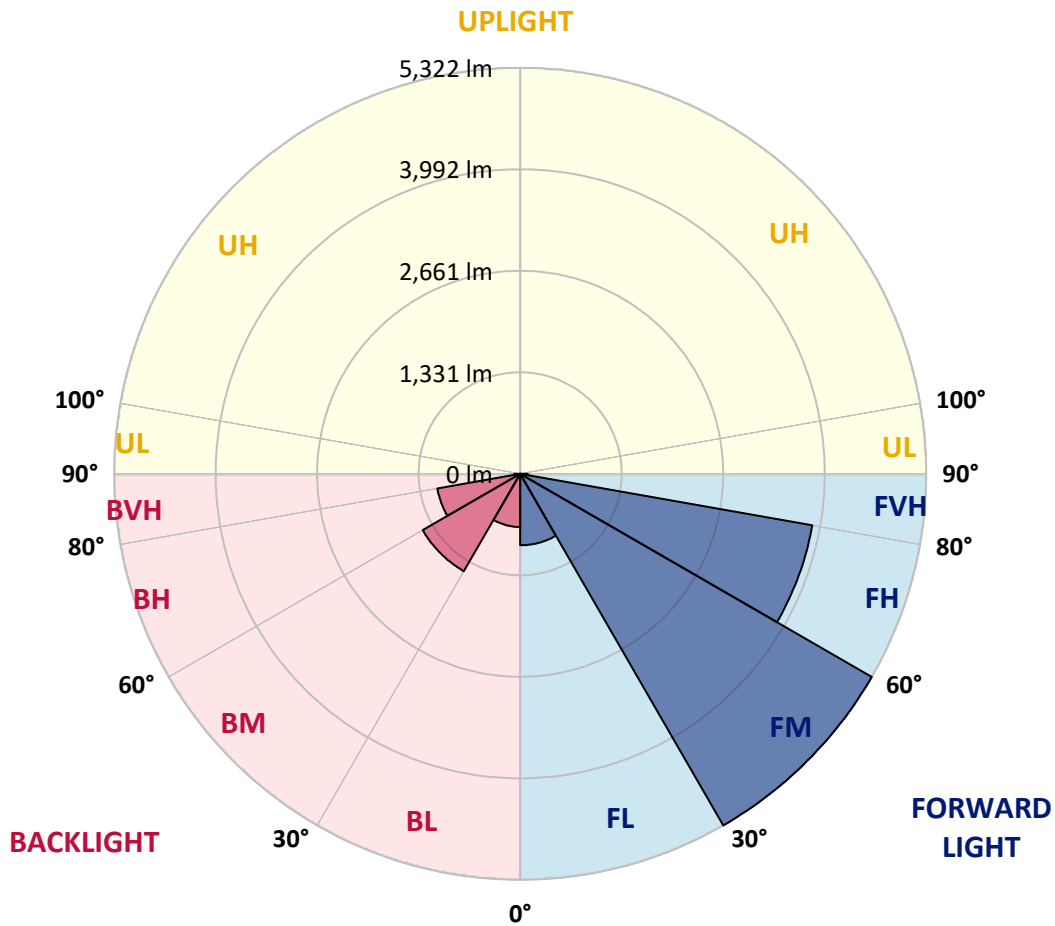
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	936.4	6.9			
FM (30°-60°)	5322.1	39.1			
FH (60°-80°)	3887.7	28.6			G2/5000
FVH (80°-90°)	99.6	0.7			G1/100
BL (0°-30°)	697.4	5.1	B2/1000		
BM (30°-60°)	1474.9	10.8	B2/2500		
BH (60°-80°)	1101.7	8.1	B3/2500		G3/2500
BVH (80°-90°)	78.3	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	1993.6	1993.6	1993.6	1993.6	1993.6	1993.6	1993.6	1993.6	1993.6	1993.6	1993.6
2.5°	2041.3	2052.8	2049.2	2045.6	2045.6	2040.5	2039.8	2032.6	2026.8	2017.4	2015.3
5°	2067.2	2079.5	2078.1	2080.9	2090.3	2092.5	2094.7	2090.3	2078.8	2067.2	2062.2
7.5°	2044.1	2057.9	2062.2	2079.5	2108.4	2134.3	2153.8	2161.8	2150.9	2134.3	2126.4
10°	1966.2	1981.4	1996.5	2037.7	2088.9	2150.2	2202.2	2233.2	2231.0	2215.2	2201.4
12.5°	1808.2	1824.1	1856.5	1936.6	2030.4	2138.7	2235.4	2300.3	2322.7	2311.1	2287.3
15°	1681.9	1695.6	1720.2	1802.4	1924.4	2088.9	2247.6	2373.9	2430.9	2424.4	2395.5
17.5°	1678.3	1684.1	1699.2	1738.2	1832.0	2011.0	2234.6	2446.0	2555.0	2554.3	2518.2
20°	1741.8	1744.0	1752.6	1760.6	1814.0	1951.8	2201.4	2505.9	2694.3	2694.3	2655.3
22.5°	1829.8	1828.4	1837.1	1829.8	1855.8	1946.7	2180.5	2558.6	2849.4	2860.9	2811.9
25°	1961.9	1954.7	1952.5	1935.9	1941.0	1993.6	2203.6	2618.5	3033.4	3057.2	2995.9
27.5°	2137.9	2126.4	2118.5	2080.2	2067.2	2090.3	2274.3	2690.7	3238.3	3279.4	3201.5
30°	2367.4	2346.5	2334.9	2268.5	2221.6	2225.3	2381.1	2786.6	3452.6	3519.0	3420.1
32.5°	2680.6	2648.1	2617.1	2508.1	2422.2	2394.1	2518.9	2919.4	3684.9	3791.0	3664.0
35°	3031.2	3005.2	2972.1	2803.9	2671.9	2607.0	2705.1	3104.8	3957.0	4125.1	3959.9
37.5°	3368.9	3346.5	3362.4	3135.8	2965.6	2871.0	2949.0	3353.8	4292.5	4540.7	4330.7
40°	3718.1	3700.8	3703.0	3486.5	3288.1	3182.0	3244.8	3666.2	4677.1	5035.0	4776.6
42.5°	4097.7	4084.7	4041.4	3849.5	3626.5	3527.6	3585.4	4027.0	5089.8	5597.8	5265.9
45°	4522.7	4514.7	4474.3	4254.2	3998.8	3887.7	3965.6	4425.3	5504.7	6127.4	5757.2
47.5°	4889.9	4896.4	4891.4	4705.9	4441.1	4278.1	4371.1	4840.9	5890.7	6625.3	6228.4
50°	5066.7	5100.6	5150.4	5092.7	4928.2	4762.2	4780.3	5242.0	6258.7	7092.1	6680.1
52.5°	4974.4	5038.6	5174.2	5266.6	5330.1	5295.4	5247.1	5640.3	6605.0	7513.5	7107.2
55°	4630.2	4720.4	4945.5	5168.4	5492.4	5744.2	5807.7	6081.9	6942.7	7884.4	7511.3
57.5°	4003.1	4149.6	4351.7	4802.6	5348.1	5961.4	6461.5	6694.5	7300.6	8280.5	7934.1
60°	2928.0	3124.3	3375.4	4046.4	4843.0	5845.3	7017.8	7635.4	7809.3	8793.5	8484.7
62.5°	1873.9	1995.1	2226.0	2858.1	3773.7	5250.0	7188.1	8811.5	8671.6	9634.8	9310.1
65°	1282.9	1360.8	1572.3	1927.3	2439.6	3907.9	6732.0	9693.3	10041.1	10968.2	10721.5
67.5°	932.2	991.4	1171.8	1482.8	1589.6	2312.6	5224.0	9652.9	11372.3	12342.1	11958.2
70°	679.7	721.5	873.1	1171.8	1223.0	1286.5	3164.7	8205.4	11343.5	12707.2	12247.6
72.5°	503.6	532.5	634.2	909.2	990.0	868.7	1566.5	5963.6	9747.4	11493.5	11124.8
75°	364.4	386.0	461.1	695.6	792.3	661.7	781.4	3485.1	6799.1	8084.9	8149.9
77.5°	278.5	295.1	344.2	509.4	634.2	496.4	484.9	1603.3	3223.9	3239.8	3421.6
80°	223.7	234.5	261.2	358.6	486.3	371.6	316.0	647.2	1018.8	862.2	904.8
82.5°	164.5	182.6	220.8	251.8	347.8	256.1	192.7	326.9	387.5	333.4	336.2
85°	93.8	106.1	133.5	180.4	222.2	156.6	110.4	145.0	180.4	147.9	132.0
87.5°	33.2	43.3	46.9	70.7	96.7	64.9	42.6	41.8	59.2	44.0	36.8
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°	1993.6	1993.6	1993.6	1993.6	1993.6	1993.6	1993.6	1993.6	1993.6	1993.6	1993.6
2.5°	2008.1	2004.5	1990.0	1970.5	1950.3	1930.9	1924.4	1910.7	1901.3	1896.2	1902.0
5°	2048.5	2036.9	2003.0	1959.7	1914.3	1865.2	1830.6	1798.8	1775.7	1754.1	1762.7
7.5°	2106.2	2086.0	2027.5	1951.8	1871.0	1789.4	1728.8	1682.6	1651.6	1631.4	1635.7
10°	2173.3	2142.3	2052.8	1939.5	1814.7	1697.8	1626.4	1586.7	1567.2	1556.4	1559.3
12.5°	2250.5	2206.5	2078.8	1911.4	1728.8	1595.3	1546.3	1534.7	1535.5	1536.2	1537.6
15°	2345.8	2284.4	2099.7	1850.0	1617.0	1516.7	1508.0	1526.8	1546.3	1555.7	1554.9
17.5°	2453.3	2366.7	2103.3	1749.0	1507.3	1466.2	1493.6	1534.0	1563.6	1576.6	1579.5
20°	2568.7	2450.4	2077.3	1606.2	1417.1	1425.1	1474.1	1526.1	1558.5	1575.1	1579.5
22.5°	2700.8	2539.8	2015.3	1456.1	1343.5	1380.3	1438.0	1488.6	1522.5	1539.1	1543.4
25°	2851.6	2640.1	1917.9	1329.8	1280.0	1329.8	1387.5	1429.4	1456.8	1472.0	1476.3
27.5°	3019.0	2744.8	1788.0	1229.5	1224.5	1277.9	1325.5	1358.0	1372.4	1383.9	1388.3
30°	3187.1	2840.0	1630.7	1153.8	1176.1	1226.6	1260.5	1275.0	1279.3	1281.5	1286.5
32.5°	3368.9	2922.3	1465.5	1091.0	1129.9	1176.8	1197.0	1203.5	1183.3	1169.6	1174.0
35°	3589.0	3010.3	1303.8	1041.2	1084.5	1124.9	1131.4	1125.6	1101.8	1073.7	1075.1
37.5°	3861.0	3120.0	1174.7	1005.8	1041.9	1068.6	1060.7	1059.2	1061.4	1028.2	1030.4
40°	4194.4	3262.8	1080.2	978.4	1007.3	1013.1	990.7	1003.0	1013.8	963.3	964.7
42.5°	4564.5	3435.3	1020.3	959.7	978.4	964.7	930.1	943.8	942.3	876.0	875.2
45°	4941.9	3622.9	999.3	945.9	951.7	924.3	886.1	889.7	859.4	799.5	801.6
47.5°	5317.1	3824.2	1012.3	934.4	918.5	887.5	857.9	842.0	797.3	752.6	752.6
50°	5685.1	4035.6	1060.0	911.3	873.1	855.0	833.4	805.2	757.6	719.4	716.5
52.5°	6026.4	4248.5	1113.3	873.1	816.1	826.9	813.2	780.7	733.8	694.9	695.6
55°	6349.6	4461.3	1134.3	820.4	762.7	802.4	794.4	734.5	678.3	646.5	643.6
57.5°	6701.7	4717.5	1111.2	753.3	719.4	774.2	743.9	677.5	645.1	621.3	619.1
60°	7189.5	5119.4	1061.4	670.3	678.3	732.4	680.4	653.0	617.6	590.9	589.5
62.5°	7999.8	5869.1	981.3	588.1	629.9	670.3	650.1	622.7	586.6	560.6	560.6
65°	9197.6	6911.0	830.5	523.8	575.8	609.7	617.6	590.2	552.7	525.3	526.7
67.5°	10207.7	7564.7	628.5	470.4	520.2	560.6	583.0	556.3	516.6	489.9	490.7
70°	10152.2	7089.9	479.8	417.8	471.2	512.3	541.2	520.2	477.7	452.4	454.6
72.5°	9017.2	5931.1	388.2	364.4	421.4	461.8	496.4	480.6	437.3	412.7	412.7
75°	6624.5	4210.2	310.3	310.3	359.3	409.1	447.4	437.3	397.6	380.3	375.2
77.5°	2792.4	1766.3	243.2	257.6	298.7	351.4	399.0	402.6	368.0	389.6	353.6
80°	742.5	487.0	185.4	202.8	234.5	290.1	347.1	345.6	308.1	287.9	267.7
82.5°	282.8	191.9	132.0	142.9	169.6	222.2	274.9	283.6	246.0	212.9	212.9
85°	109.0	82.3	81.5	85.9	98.9	147.2	207.8	215.0	185.4	157.3	162.3
87.5°	28.1	24.5	30.3	28.9	45.5	78.6	119.1	123.4	113.3	65.7	93.8
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)