

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: P882717

Luminaire Tested: **NAV-SB2D-722-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882717
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-SB2D-722-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2200K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16376 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

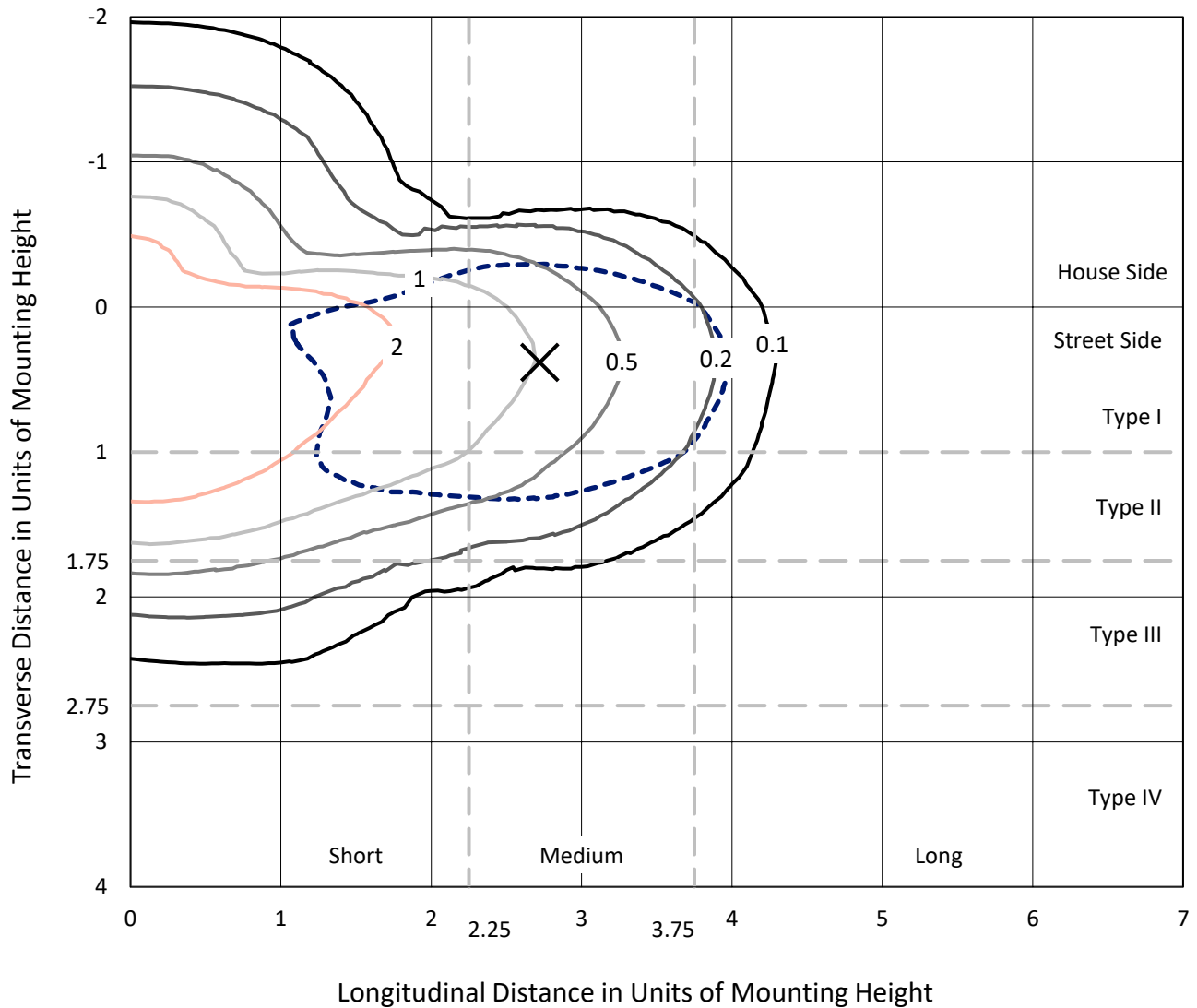
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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 CATALOG NUMBER: NAV-SB2D-722-U-T2

Iso-Footcandle Lines of Horizontal Illumination

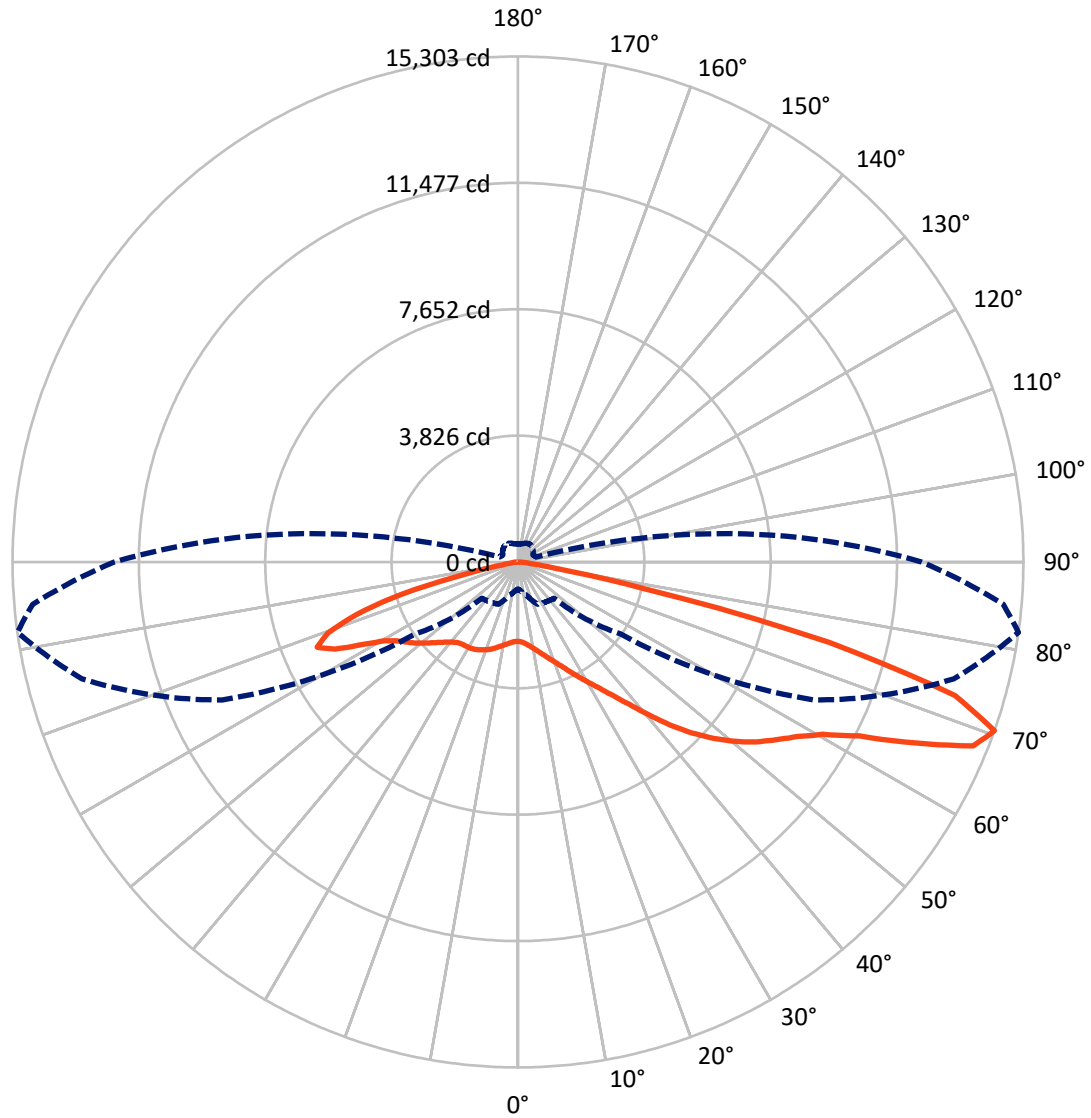
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
 Type II - Medium - N/A

REPORT NUMBER: P882717
CATALOG NUMBER: NAV-SB2D-722-U-T2

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	4037.1	0.0	4037.1
	% Fixture	24.7	0.0	24.7
Street Side	Lumens	12338.9	0.0	12338.9
	% Fixture	75.3	0.0	75.3
Total	Lumens	16376.0	0.0	16376.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.7	1.4
10°-20°	651.3	4.0
20°-30°	1089.6	6.7
30°-40°	1702.2	10.4
40°-50°	2710.9	16.6
50°-60°	3772.5	23.0
60°-70°	3946.2	24.1
70°-80°	2062.5	12.6
80°-90°	214.2	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°	16376.0	100.0
0°-180°	16376.0	100.0

Coefficient of Utilization



REPORT NUMBER: P882717

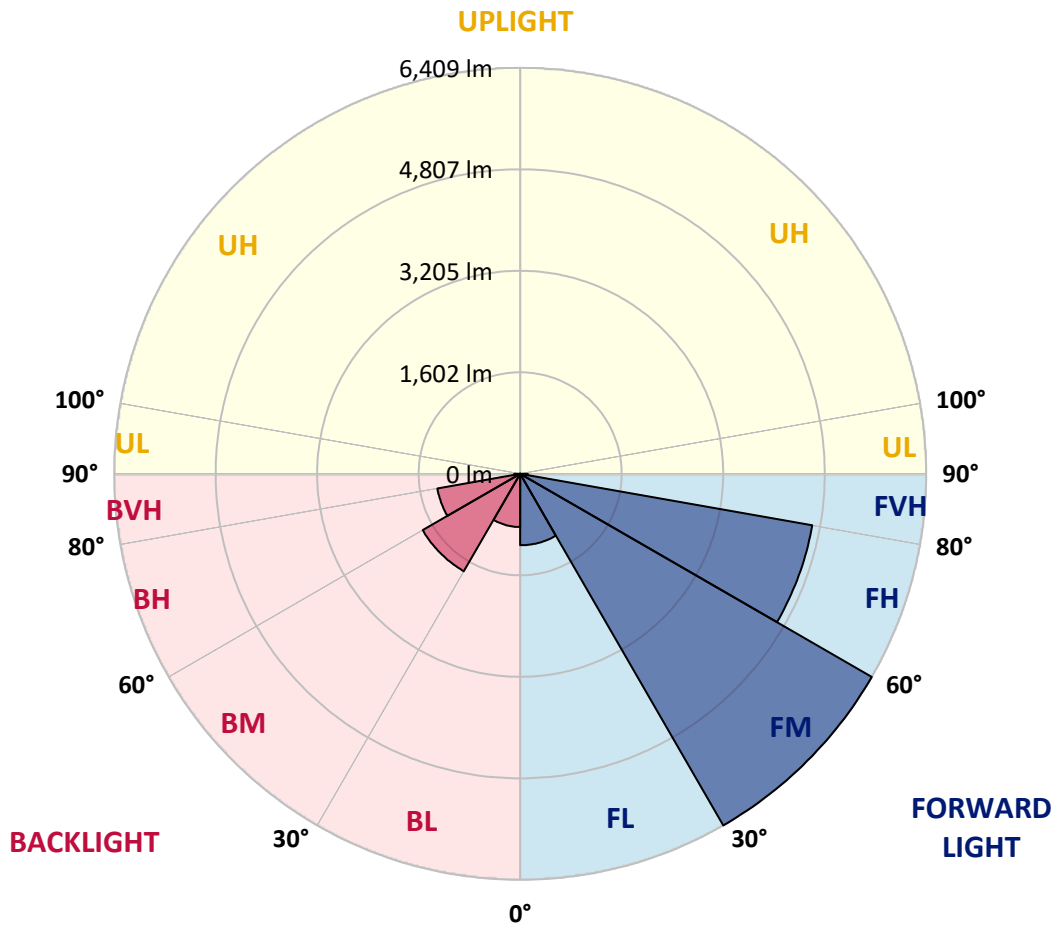
CATALOG NUMBER: NAV-SB2D-722-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1127.7	6.9			
FM (30°-60°)	6409.4	39.1			
FH (60°-80°)	4681.9	28.6			G2/5000
FVH (80°-90°)	119.9	0.7			G2/225
BL (0°-30°)	839.9	5.1	B2/1000		
BM (30°-60°)	1776.2	10.8	B2/2500		
BH (60°-80°)	1326.8	8.1	B3/2500		G3/2500
BVH (80°-90°)	94.3	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



REPORT NUMBER: P882717

CATALOG NUMBER: NAV-SB2D-722-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	82°	85°
0°	2400.9	2400.9	2400.9	2400.9	2400.9	2400.9	2400.9	2400.9	2400.9	2400.9	2400.9
2.5°	2458.3	2472.2	2467.8	2463.5	2463.5	2457.4	2456.5	2447.9	2440.9	2429.6	2427.0
5°	2489.6	2504.3	2502.6	2506.1	2517.4	2520.0	2522.6	2517.4	2503.5	2489.6	2483.5
7.5°	2461.8	2478.3	2483.5	2504.3	2539.1	2570.4	2593.8	2603.4	2590.4	2570.4	2560.8
10°	2367.9	2386.2	2404.4	2453.9	2515.6	2589.5	2652.1	2689.4	2686.8	2667.7	2651.2
12.5°	2177.6	2196.7	2235.8	2332.3	2445.2	2575.6	2692.0	2770.2	2797.2	2783.3	2754.6
15°	2025.5	2042.0	2071.6	2170.7	2317.5	2515.6	2706.8	2858.9	2927.5	2919.7	2884.9
17.5°	2021.2	2028.1	2046.4	2093.3	2206.3	2421.8	2691.2	2945.8	3077.0	3076.1	3032.7
20°	2097.7	2100.3	2110.7	2120.3	2184.6	2350.5	2651.2	3017.9	3244.7	3244.7	3197.8
22.5°	2203.7	2201.9	2212.4	2203.7	2235.0	2344.4	2626.0	3081.3	3431.5	3445.4	3386.3
25°	2362.7	2354.0	2351.4	2331.4	2337.5	2400.9	2653.8	3153.4	3653.1	3681.8	3607.9
27.5°	2574.7	2560.8	2551.3	2505.2	2489.6	2517.4	2739.0	3240.3	3899.9	3949.4	3855.6
30°	2851.0	2825.8	2811.9	2732.0	2675.5	2679.9	2867.6	3355.9	4158.0	4237.9	4118.9
32.5°	3228.2	3189.1	3151.7	3020.5	2917.1	2883.2	3033.5	3515.8	4437.8	4565.5	4412.6
35°	3650.5	3619.2	3579.2	3376.8	3217.7	3139.5	3257.7	3739.1	4765.4	4967.8	4768.8
37.5°	4057.2	4030.2	4049.3	3776.5	3571.4	3457.6	3551.4	4038.9	5169.4	5468.3	5215.5
40°	4477.7	4456.9	4459.5	4198.8	3959.8	3832.1	3907.7	4415.2	5632.6	6063.6	5752.5
42.5°	4934.8	4919.2	4867.0	4635.9	4367.4	4248.3	4317.8	4849.6	6129.6	6741.4	6341.6
45°	5446.6	5437.1	5388.4	5123.4	4815.8	4681.9	4775.8	5329.3	6629.3	7379.2	6933.4
47.5°	5888.9	5896.7	5890.7	5667.3	5348.4	5152.0	5264.1	5829.8	7094.2	7978.8	7500.8
50°	6101.8	6142.7	6202.6	6133.1	5935.0	5735.1	5756.8	6313.0	7537.3	8541.0	8044.8
52.5°	5990.6	6067.9	6231.3	6342.5	6419.0	6377.3	6319.1	6792.6	7954.4	9048.4	8559.2
55°	5576.1	5684.7	5955.8	6224.3	6614.5	6917.8	6994.2	7324.4	8361.1	9495.1	9045.8
57.5°	4821.0	4997.4	5240.7	5783.8	6440.7	7179.3	7781.5	8062.2	8792.1	9972.1	9555.0
60°	3526.2	3762.6	4065.0	4873.1	5832.4	7039.4	8451.5	9195.3	9404.7	10590.0	10218.1
62.5°	2256.7	2402.7	2680.7	3441.9	4544.6	6322.5	8656.5	10611.7	10443.1	11603.2	11212.1
65°	1545.0	1638.9	1893.5	2321.0	2937.9	4706.3	8107.4	11673.6	12092.4	13209.0	12911.8
67.5°	1122.7	1193.9	1411.2	1785.7	1914.3	2785.0	6291.2	11624.9	13695.6	14863.5	14401.2
70°	818.6	869.0	1051.4	1411.2	1472.9	1549.3	3811.2	9881.8	13660.9	15303.2	14749.7
72.5°	606.5	641.3	763.8	1094.9	1192.2	1046.2	1886.5	7181.9	11738.7	13841.6	13397.6
75°	438.8	464.9	555.3	837.7	954.1	796.8	941.1	4197.1	8188.2	9736.7	9814.9
77.5°	335.4	355.4	414.5	613.5	763.8	597.8	583.9	1930.8	3882.5	3901.6	4120.6
80°	269.4	282.4	314.6	431.9	585.7	447.5	380.6	779.5	1227.0	1038.4	1089.7
82.5°	198.1	219.8	265.9	303.3	418.8	308.5	232.0	393.6	466.6	401.5	404.9
85°	113.0	127.7	160.8	217.2	267.6	188.6	133.0	174.7	217.2	178.1	159.0
87.5°	40.0	52.1	56.5	85.2	116.4	78.2	51.3	50.4	71.3	53.0	44.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P882717

CATALOG NUMBER: NAV-SB2D-722-U-T2

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2400.9	2400.9	2400.9	2400.9	2400.9	2400.9	2400.9	2400.9	2400.9	2400.9	2400.9
2.5°	2418.3	2414.0	2396.6	2373.1	2348.8	2325.3	2317.5	2301.0	2289.7	2283.6	2290.6
5°	2467.0	2453.1	2412.2	2360.1	2305.3	2246.3	2204.5	2166.3	2138.5	2112.4	2122.9
7.5°	2536.5	2512.2	2441.8	2350.5	2253.2	2155.0	2082.0	2026.4	1989.0	1964.7	1969.9
10°	2617.3	2579.9	2472.2	2335.8	2185.4	2044.7	1958.6	1910.8	1887.4	1874.3	1877.8
12.5°	2710.3	2657.3	2503.5	2301.9	2082.0	1921.3	1862.2	1848.3	1849.1	1850.0	1851.7
15°	2825.0	2751.1	2528.7	2228.0	1947.3	1826.5	1816.1	1838.7	1862.2	1873.5	1872.6
17.5°	2954.5	2850.2	2533.0	2106.4	1815.2	1765.7	1798.7	1847.4	1883.0	1898.7	1902.1
20°	3093.5	2951.0	2501.7	1934.3	1706.6	1716.2	1775.3	1837.8	1876.9	1896.9	1902.1
22.5°	3252.5	3058.7	2427.0	1753.6	1618.0	1662.3	1731.8	1792.7	1833.5	1853.5	1858.7
25°	3434.1	3179.5	2309.7	1601.5	1541.5	1601.5	1671.0	1721.4	1754.4	1772.7	1777.9
27.5°	3635.7	3305.5	2153.3	1480.7	1474.6	1538.9	1596.3	1635.4	1652.8	1666.7	1671.9
30°	3838.2	3420.2	1963.8	1389.5	1416.4	1477.2	1518.1	1535.4	1540.7	1543.3	1549.3
32.5°	4057.2	3519.3	1764.9	1313.9	1360.8	1417.3	1441.6	1449.4	1425.1	1408.6	1413.8
35°	4322.2	3625.3	1570.2	1253.9	1306.0	1354.7	1362.5	1355.6	1326.9	1293.0	1294.7
37.5°	4649.8	3757.4	1414.7	1211.3	1254.8	1286.9	1277.4	1275.6	1278.2	1238.3	1240.9
40°	5051.2	3929.4	1300.8	1178.3	1213.1	1220.0	1193.1	1207.8	1220.9	1160.1	1161.8
42.5°	5497.0	4137.1	1228.7	1155.7	1178.3	1161.8	1120.1	1136.6	1134.9	1054.9	1054.0
45°	5951.5	4363.0	1203.5	1139.2	1146.2	1113.1	1067.1	1071.4	1034.9	962.8	965.4
47.5°	6403.3	4605.5	1219.1	1125.3	1106.2	1068.8	1033.2	1014.1	960.2	906.3	906.3
50°	6846.5	4860.1	1276.5	1097.5	1051.4	1029.7	1003.6	969.8	912.4	866.3	862.9
52.5°	7257.5	5116.4	1340.8	1051.4	982.8	995.8	979.3	940.2	883.7	836.8	837.7
55°	7646.8	5372.8	1366.0	988.0	918.5	966.3	956.7	884.6	816.8	778.6	775.1
57.5°	8070.9	5681.2	1338.2	907.2	866.3	932.4	895.9	816.0	776.8	748.2	745.6
60°	8658.3	6165.2	1278.2	807.3	816.8	882.0	819.4	786.4	743.8	711.7	709.9
62.5°	9634.1	7068.1	1181.8	708.2	758.6	807.3	782.9	749.9	706.5	675.2	675.2
65°	11076.6	8322.9	1000.2	630.9	693.4	734.3	743.8	710.8	665.6	632.6	634.3
67.5°	12293.1	9110.1	756.9	566.6	626.5	675.2	702.1	670.0	622.2	590.0	590.9
70°	12226.2	8538.4	577.9	503.1	567.4	617.0	651.7	626.5	575.2	544.8	547.4
72.5°	10859.3	7142.8	467.5	438.8	507.5	556.1	597.8	578.7	526.6	497.0	497.0
75°	7977.9	5070.4	373.7	373.7	432.7	492.7	538.8	526.6	478.8	457.9	451.9
77.5°	3362.9	2127.2	292.8	310.2	359.7	423.2	480.5	484.9	443.2	469.2	425.8
80°	894.2	586.5	223.3	244.2	282.4	349.3	418.0	416.2	371.0	346.7	322.4
82.5°	340.6	231.1	159.0	172.1	204.2	267.6	331.1	341.5	296.3	256.3	256.3
85°	131.2	99.1	98.2	103.4	119.0	177.3	250.3	258.9	223.3	189.4	195.5
87.5°	33.9	29.5	36.5	34.8	54.7	94.7	143.4	148.6	136.4	79.1	113.0
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)