

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: P882809

Luminaire Tested: **NAV-SB2D-835-U-T3**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882809
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2D-835-U-T3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 80 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17511 lumens
Efficiency: N/A
Efficacy: 118.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

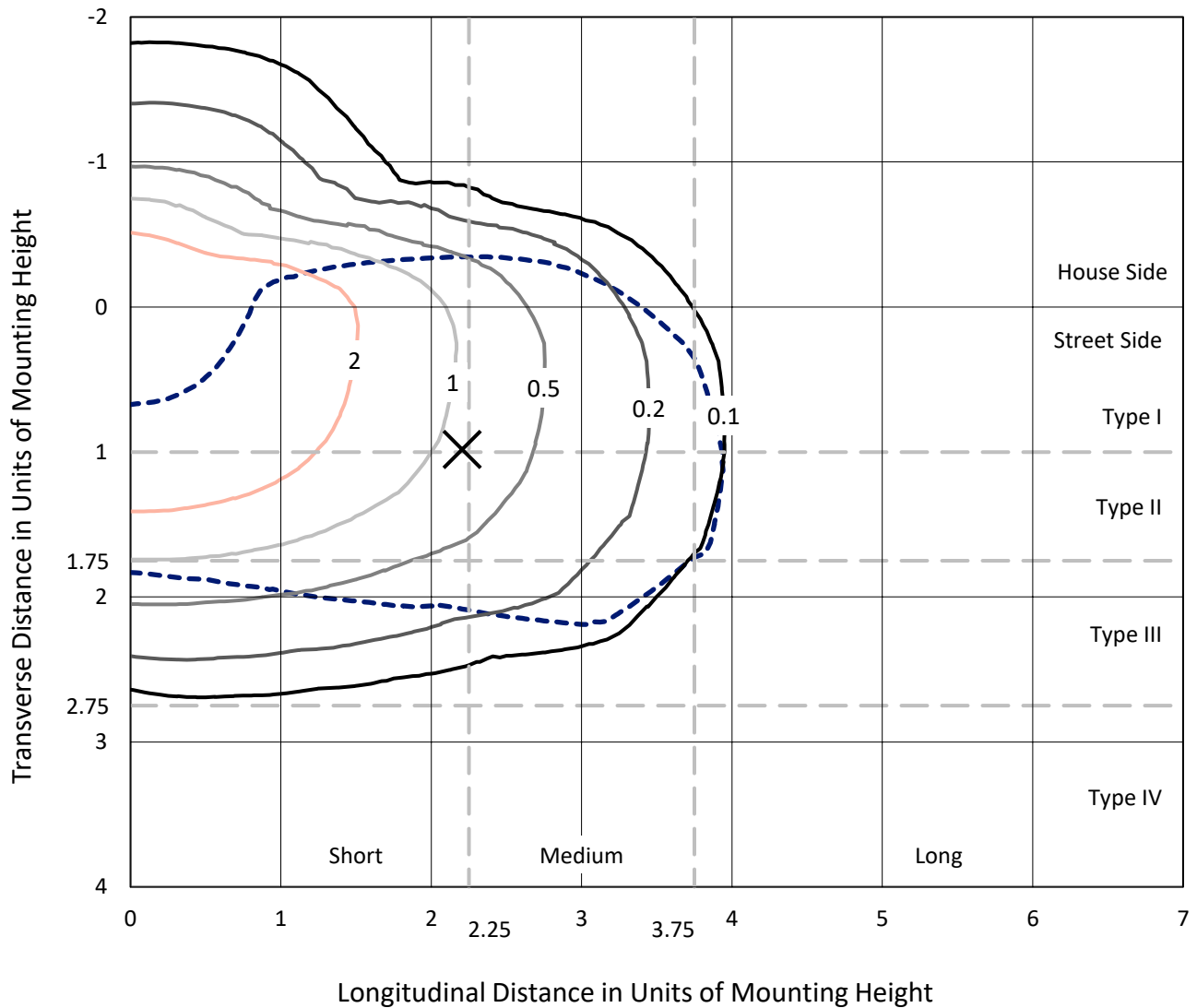
Input Watts (W): 147.6
Input Voltage (V): 120.0
Input Current (Ain): 1.234
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 3.108
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

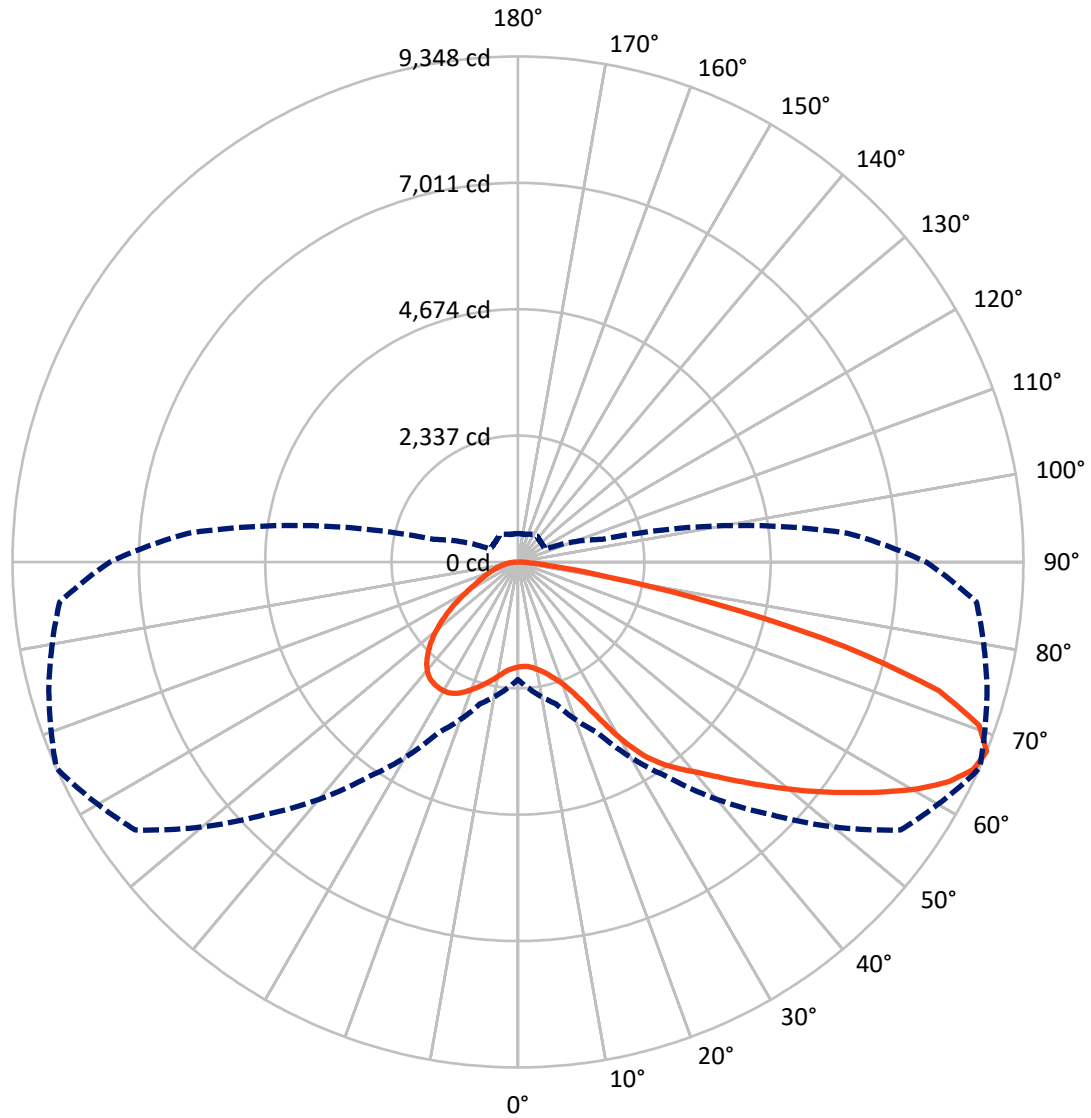
✕ Max cd
 - - - 1/2 Max cd



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

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CATALOG NUMBER: NAV-SB2D-835-U-T3

Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4354.0	0.0	4354.0
	% Fixture	24.9	0.0	24.9
Street Side	Lumens	13156.9	0.0	13156.9
	% Fixture	75.1	0.0	75.1
Total	Lumens	17511.0	0.0	17511.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.6	1.1
10°-20°	636.2	3.6
20°-30°	1226.2	7.0
30°-40°	2150.0	12.3
40°-50°	3196.4	18.3
50°-60°	4051.8	23.1
60°-70°	3964.5	22.6
70°-80°	1891.1	10.8
80°-90°	202.1	1.2
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°	17511.0	100.0
0°-180°	17511.0	100.0

Coefficient of Utilization



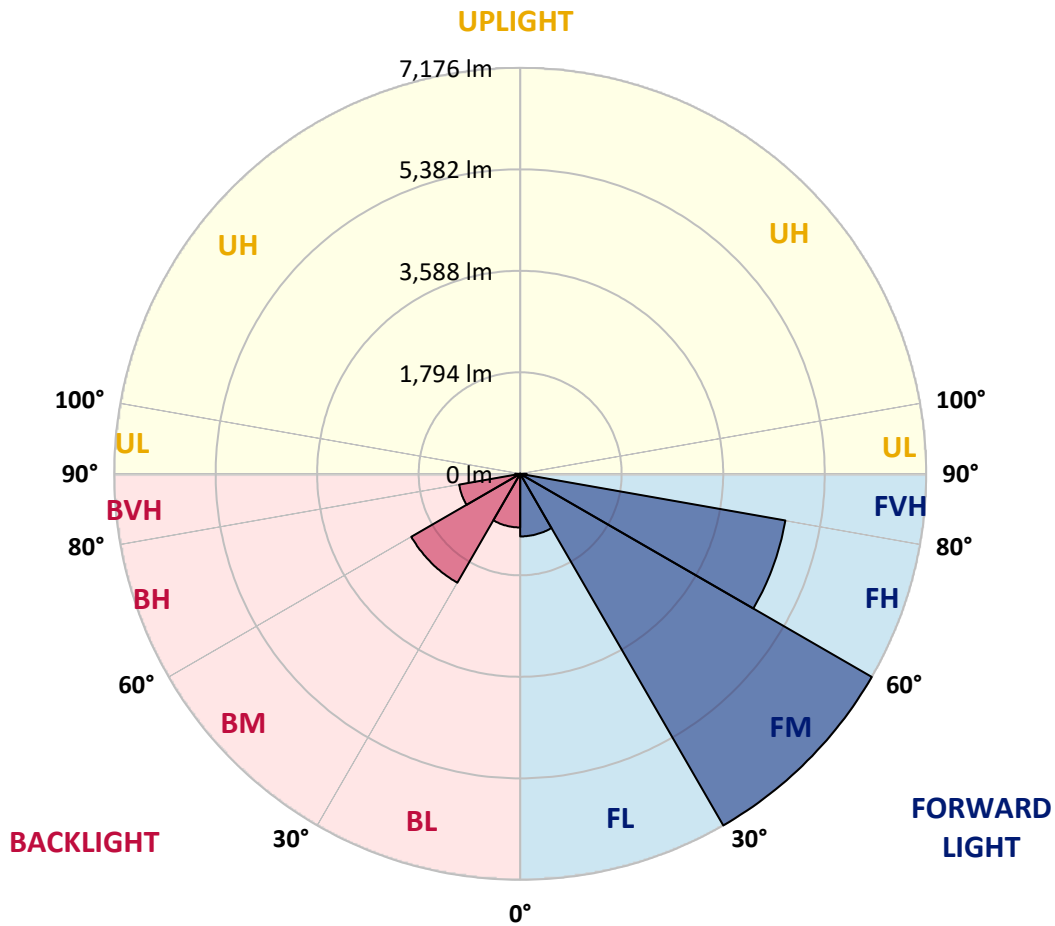
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1106.5	6.3			
FM (30°-60°)	7175.9	41.0			
FH (60°-80°)	4760.0	27.2			G2/5000
FVH (80°-90°)	114.6	0.7			G2/225
BL (0°-30°)	948.5	5.4	B2/1000		
BM (30°-60°)	2222.4	12.7	B2/2500		
BH (60°-80°)	1095.7	6.3	B3/2500		G3/2500
BVH (80°-90°)	87.5	0.5			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 III Short



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CATALOG NUMBER: NAV-SB2D-835-U-T3

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	1942.2	1942.2	1942.2	1942.2	1942.2	1942.2	1942.2	1942.2	1942.2	1942.2	1942.2
2.5°	1922.0	1933.0	1930.2	1925.6	1924.7	1926.6	1929.3	1932.1	1931.2	1935.8	1943.1
5°	1916.4	1927.5	1926.6	1926.6	1930.2	1937.6	1942.2	1946.8	1942.2	1947.7	1957.8
7.5°	1920.1	1928.4	1932.1	1935.8	1945.0	1958.8	1969.8	1979.9	1974.4	1980.8	1993.7
10°	1967.0	1973.5	1977.2	1977.2	1983.6	1999.2	2010.3	2028.7	2024.1	2034.2	2050.8
12.5°	2052.6	2059.0	2059.0	2055.4	2060.0	2070.1	2073.8	2094.0	2085.7	2102.3	2118.8
15°	2157.5	2170.4	2160.3	2153.8	2155.7	2165.8	2164.9	2180.5	2172.2	2186.0	2200.7
17.5°	2273.4	2290.0	2273.4	2272.5	2268.8	2279.9	2280.8	2294.6	2279.9	2290.0	2300.1
20°	2410.5	2433.5	2419.7	2424.3	2416.0	2420.6	2425.2	2445.5	2422.5	2429.8	2427.1
22.5°	2603.7	2631.3	2616.6	2634.1	2628.6	2624.9	2623.9	2659.8	2623.9	2626.7	2600.0
25°	2885.2	2918.4	2892.6	2916.5	2916.5	2928.5	2942.3	2988.3	2928.5	2911.0	2842.0
27.5°	3301.1	3334.2	3283.6	3298.3	3293.7	3323.2	3308.5	3422.5	3358.1	3329.6	3190.7
30°	3801.6	3860.5	3764.8	3761.1	3756.5	3803.4	3824.6	3900.0	3834.7	3806.2	3638.8
32.5°	4342.6	4404.2	4290.1	4257.0	4239.5	4268.1	4250.6	4311.3	4266.2	4222.1	4015.0
35°	4914.8	4975.6	4867.0	4802.6	4732.7	4672.9	4610.3	4626.0	4583.6	4516.5	4302.1
37.5°	5455.8	5567.2	5452.1	5383.1	5254.3	5137.5	4962.7	4890.0	4850.4	4788.8	4572.6
40°	6006.9	6070.4	5983.0	5924.1	5784.3	5601.2	5321.5	5167.9	5114.5	5054.7	4871.6
42.5°	6412.7	6473.4	6426.5	6386.0	6276.5	6064.0	5702.4	5510.1	5432.8	5365.7	5210.2
45°	6734.7	6779.8	6750.3	6765.0	6718.1	6512.0	6097.1	5877.2	5797.2	5715.3	5592.9
47.5°	6864.4	6912.2	6959.2	7046.6	7126.6	6974.8	6521.2	6274.7	6190.0	6106.3	5985.8
50°	6849.7	6898.4	7034.6	7220.5	7468.9	7418.3	6968.4	6697.9	6619.7	6524.0	6412.7
52.5°	6731.9	6787.1	6961.9	7271.1	7666.7	7750.4	7423.8	7134.9	7061.3	6947.2	6835.9
55°	6422.8	6455.9	6718.1	7156.1	7713.6	7982.3	7870.0	7600.4	7526.8	7367.7	7246.2
57.5°	5849.6	5897.4	6279.3	6846.0	7595.8	8139.6	8261.9	8089.9	8019.1	7790.0	7663.0
60°	5101.6	5178.0	5615.0	6325.3	7295.9	8138.7	8618.0	8571.1	8512.2	8205.8	8073.3
62.5°	4255.2	4343.5	4764.0	5589.2	6771.5	7907.7	8840.7	8974.1	8943.7	8589.5	8420.2
65°	3268.0	3328.7	3747.3	4637.0	5955.4	7411.8	8866.4	9249.1	9254.7	8881.1	8601.4
67.5°	2175.9	2350.7	2714.1	3479.6	4862.4	6601.3	8640.1	9294.2	9347.6	8981.4	8510.4
70°	1061.7	1291.7	1647.8	2261.5	3479.6	5358.3	8048.5	8924.4	9043.1	8688.8	7967.5
72.5°	440.7	515.2	709.3	1116.0	1997.4	3615.8	6859.8	7921.5	8141.4	7698.9	6698.8
75°	297.2	322.0	405.7	572.3	909.9	1783.0	4947.0	5906.6	6260.9	5814.6	4752.9
77.5°	229.1	244.7	295.3	400.2	541.0	674.4	2647.9	3559.6	3742.7	3464.9	2473.1
80°	180.3	192.3	220.8	291.7	383.7	360.7	902.6	1612.8	1718.6	1441.7	794.9
82.5°	156.4	161.0	158.2	197.8	254.9	210.7	296.3	595.3	656.9	476.6	259.5
85°	113.2	126.0	131.6	122.4	135.2	106.7	121.4	210.7	231.8	207.0	146.3
87.5°	46.0	68.1	83.7	79.1	49.7	30.4	37.7	61.6	70.8	77.3	47.8
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°	1942.2	1942.2	1942.2	1942.2	1942.2	1942.2	1942.2	1942.2	1942.2	1942.2	1942.2
2.5°	1944.0	1950.5	1955.1	1960.6	1964.3	1969.8	1980.8	1987.3	1988.2	1992.8	1991.9
5°	1961.5	1970.7	1980.8	1995.6	2012.1	2025.9	2047.1	2061.8	2067.3	2071.9	2071.0
7.5°	1999.2	2012.1	2030.5	2056.3	2080.2	2098.6	2124.4	2141.8	2159.3	2165.8	2166.7
10°	2055.4	2073.8	2100.4	2135.4	2161.2	2185.1	2211.8	2226.5	2244.0	2251.3	2255.0
12.5°	2125.3	2144.6	2179.6	2228.3	2252.3	2268.8	2278.0	2274.3	2278.0	2284.5	2286.3
15°	2205.3	2226.5	2266.1	2318.5	2335.1	2320.3	2300.1	2281.7	2278.9	2280.8	2287.2
17.5°	2300.1	2315.7	2361.7	2405.9	2393.9	2333.2	2289.1	2259.6	2244.9	2240.3	2246.7
20°	2432.6	2432.6	2470.3	2497.9	2417.9	2314.8	2245.8	2198.0	2167.6	2154.7	2152.0
22.5°	2593.6	2578.9	2602.8	2583.5	2413.3	2263.3	2167.6	2084.8	2038.8	2020.4	2017.6
25°	2797.8	2780.4	2773.9	2654.3	2380.1	2181.4	2025.9	1925.6	1885.2	1875.0	1876.9
27.5°	3106.1	3061.9	2978.2	2693.0	2319.4	2052.6	1860.3	1767.4	1744.4	1745.3	1748.1
30°	3516.4	3428.1	3222.9	2699.4	2220.1	1870.4	1691.0	1624.8	1613.7	1618.3	1634.0
32.5°	3896.4	3812.6	3473.1	2670.0	2067.3	1692.0	1539.2	1495.1	1478.5	1484.0	1491.4
35°	4194.5	4171.5	3705.0	2628.6	1879.6	1524.5	1403.1	1365.3	1333.1	1325.8	1331.3
37.5°	4476.0	4466.8	3878.9	2570.6	1693.8	1405.8	1293.6	1243.9	1197.0	1171.2	1172.1
40°	4785.1	4775.9	3993.0	2481.3	1529.1	1302.8	1195.1	1129.8	1071.8	1024.9	1029.5
42.5°	5132.9	5078.6	4047.2	2353.5	1389.3	1215.4	1115.1	1026.8	950.4	907.2	909.9
45°	5512.9	5390.5	4046.3	2190.6	1271.5	1135.3	1029.5	904.4	833.6	793.1	791.2
47.5°	5915.8	5688.6	3996.6	2010.3	1157.4	1047.0	897.0	801.4	754.4	729.6	724.1
50°	6331.7	5967.4	3912.0	1803.3	1040.6	946.7	814.2	748.9	713.0	690.0	681.7
52.5°	6722.7	6220.4	3809.9	1568.7	921.9	849.2	777.4	726.8	689.1	663.3	652.3
55°	7086.1	6438.4	3665.4	1328.5	825.3	783.9	760.0	717.6	674.4	644.0	632.1
57.5°	7409.1	6580.1	3416.1	1103.1	756.3	738.8	741.6	702.0	652.3	626.5	610.0
60°	7677.7	6684.1	3047.2	894.3	700.1	694.6	713.0	672.5	614.6	585.1	572.3
62.5°	7838.7	6682.2	2594.5	732.4	652.3	654.1	675.3	635.7	576.9	549.3	541.0
65°	7824.9	6518.5	2097.7	626.5	606.3	608.1	635.7	595.3	545.6	529.0	528.1
67.5°	7548.0	6119.2	1609.1	557.5	555.7	564.0	596.2	567.7	526.3	524.4	527.2
70°	6798.2	5290.2	1159.2	502.3	503.3	515.2	557.5	550.2	516.1	519.8	518.9
72.5°	5451.2	4033.4	778.4	444.4	445.3	464.6	520.7	536.4	506.0	554.8	562.1
75°	3630.5	2515.4	500.5	382.7	383.7	408.5	488.5	509.7	478.4	552.9	557.5
77.5°	1744.4	1130.7	362.5	322.0	322.0	345.0	422.3	456.3	407.6	429.7	393.8
80°	602.6	425.1	285.2	259.5	253.9	269.6	356.1	395.6	351.5	323.9	303.6
82.5°	237.4	220.8	229.1	201.5	183.1	193.2	276.9	326.6	258.5	233.7	232.8
85°	136.2	143.5	161.9	133.4	105.8	118.7	203.3	234.6	195.0	172.0	175.7
87.5°	36.8	50.6	74.5	69.0	47.8	50.6	96.6	129.7	112.2	86.5	89.2
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)