

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: P270492

Luminaire Tested: **NAV-AF-04-D-UNV-5WQ-7027-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P270492
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24131)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-04-D-UNV-5WQ-7027-1200
Description: NAVION ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24191.6 lumens
Efficiency: N/A
Efficacy: 93.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G3

Input Watts (W): 258
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

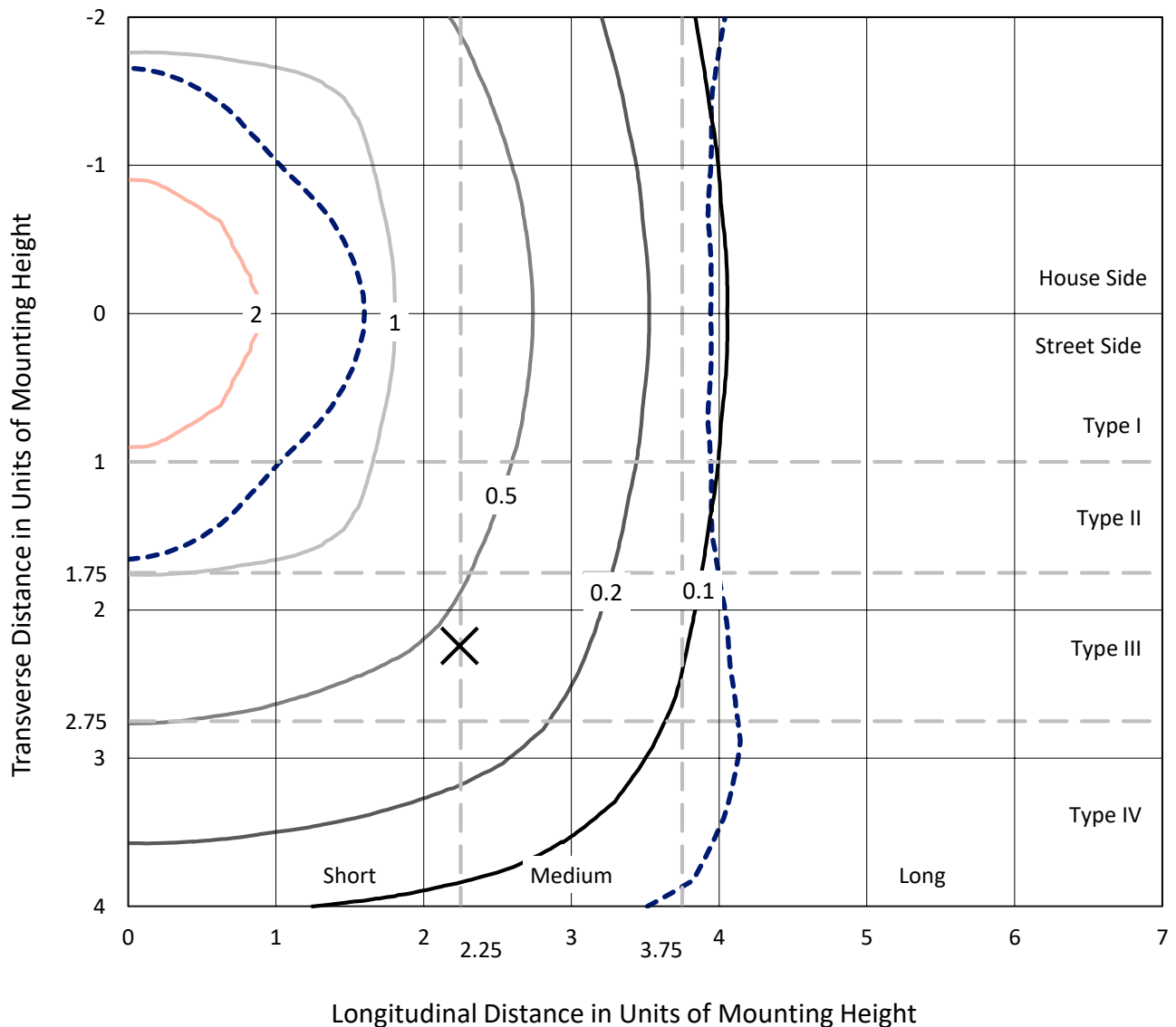


REPORT NUMBER: P270492

CATALOG NUMBER: NAV-AF-04-D-UNV-5WQ-7027-1200

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

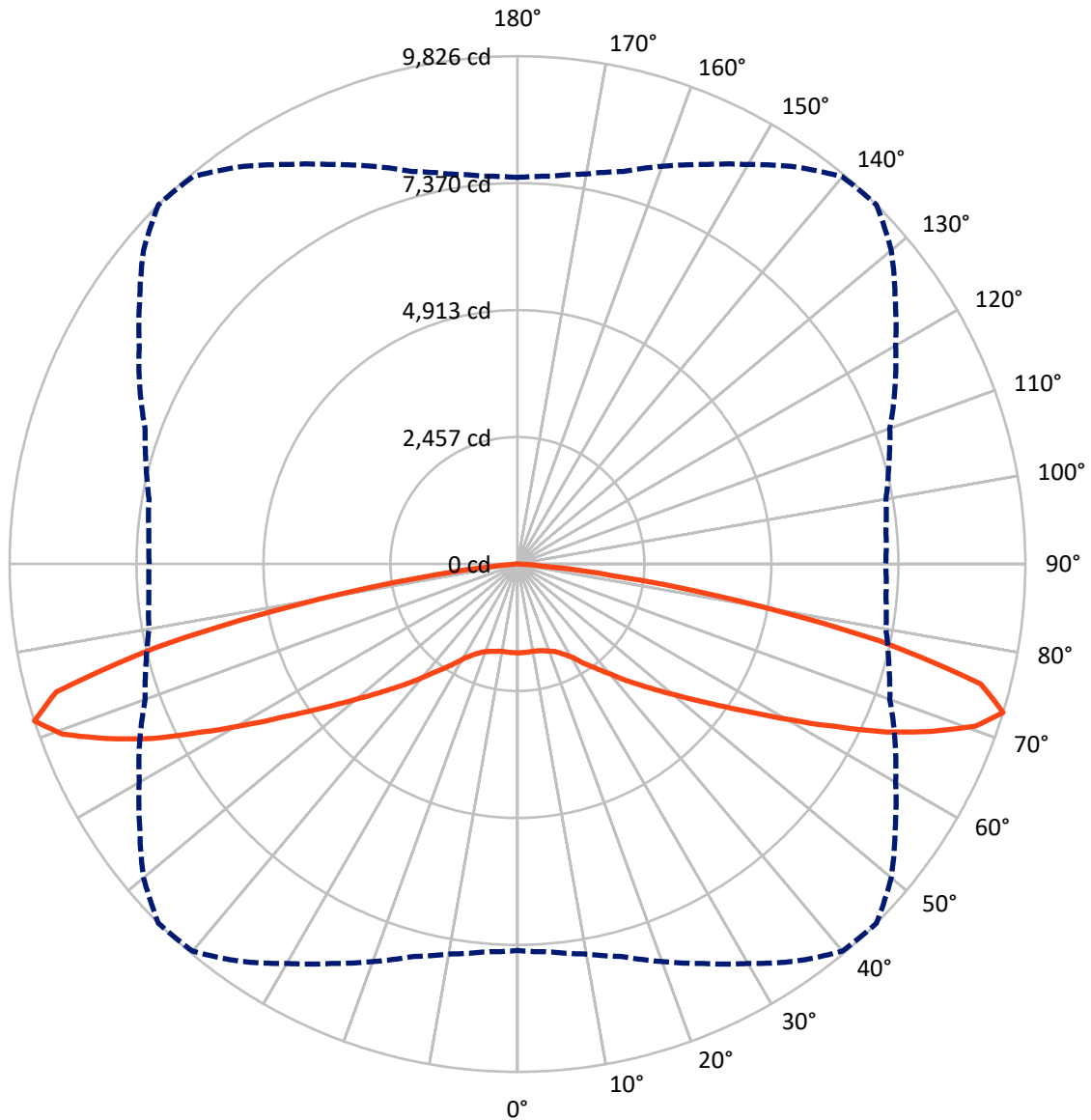


Based on 25 foot mounting height. Maximum calculated value = 2.8 fc
 Type V - Short - Semi-Cutoff

REPORT NUMBER: P270492

CATALOG NUMBER: NAV-AF-04-D-UNV-5WQ-7027-1200

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

REPORT NUMBER: P270492

CATALOG NUMBER: NAV-AF-04-D-UNV-5WQ-7027-1200

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12095.8	0.0	12095.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12095.8	0.0	12095.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	24191.6	0.0	24191.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.2	0.7
10°-20°	496.8	2.1
20°-30°	896.9	3.7
30°-40°	1529.8	6.3
40°-50°	2604.6	10.8
50°-60°	4191.6	17.3
60°-70°	6970.8	28.8
70°-80°	6743.4	27.9
80°-90°	593.5	2.5
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°	24191.6	100.0
0°-180°	24191.6	100.0



REPORT NUMBER: P270492

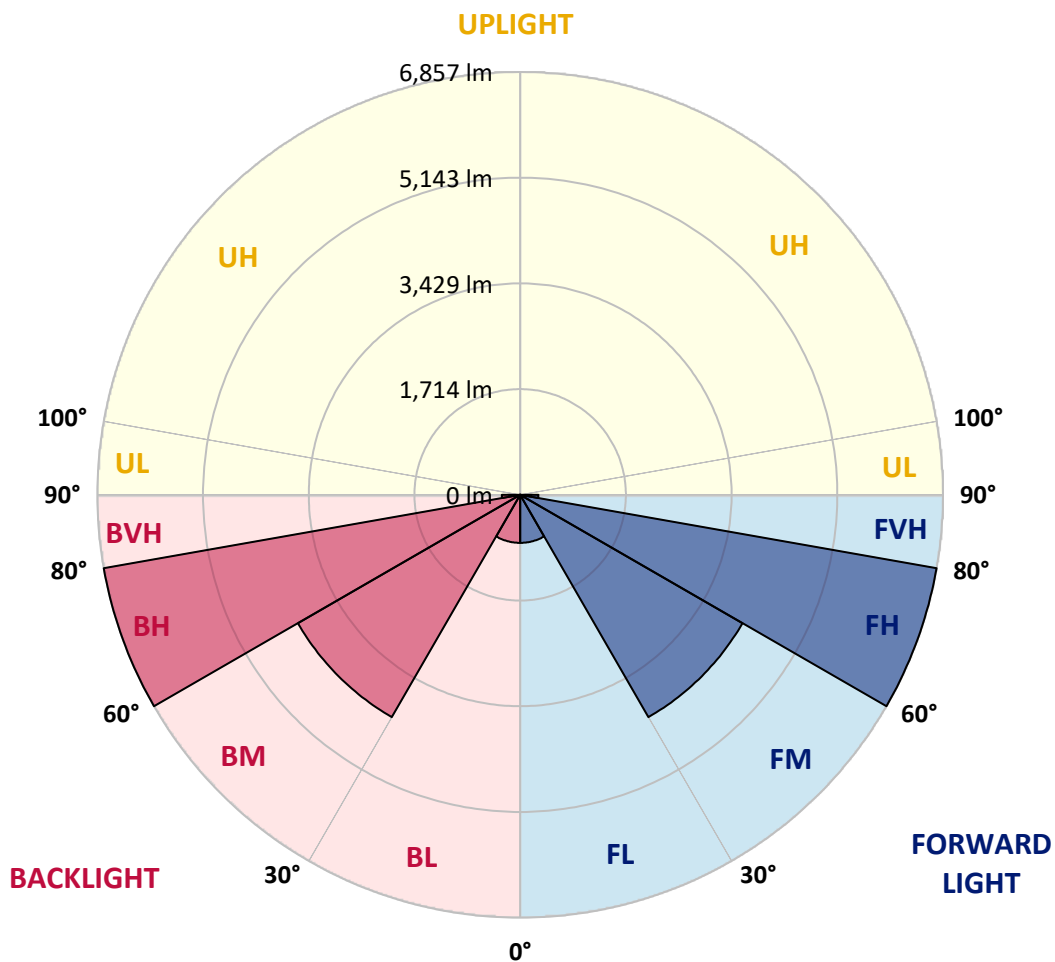
CATALOG NUMBER: NAV-AF-04-D-UNV-5WQ-7027-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	778.9	3.2			
FM	(30°-60°)	4163.0	17.2			
FH	(60°-80°)	6857.1	28.3			G3/7500
FVH	(80°-90°)	296.8	1.2			G3/500
BL	(0°-30°)	778.9	3.2	B2/1000		
BM	(30°-60°)	4163.0	17.2	B3/5000		
BH	(60°-80°)	6857.1	28.3	B5		G3/7500
BVH	(80°-90°)	296.8	1.2			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G3

Type V Short





REPORT NUMBER: P270492

CATALOG NUMBER: NAV-AF-04-D-UNV-5WQ-7027-1200

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1719.8	1719.8	1719.8	1719.8	1719.8	1719.8	1719.8	1719.8	1719.8	1719.8	1719.8
2.5°	1733.2	1733.2	1734.7	1733.2	1730.2	1728.8	1724.2	1721.3	1718.4	1716.9	1713.8
5°	1734.7	1734.7	1736.2	1734.7	1731.8	1728.8	1725.9	1721.3	1718.4	1715.4	1713.8
7.5°	1740.6	1742.2	1743.7	1742.2	1736.2	1733.2	1728.8	1724.2	1718.4	1715.4	1712.3
10°	1752.7	1752.7	1752.7	1751.1	1746.7	1740.6	1734.7	1730.2	1722.8	1715.4	1710.9
12.5°	1761.5	1763.1	1763.1	1760.0	1754.1	1746.7	1740.6	1736.2	1730.2	1724.2	1719.8
15°	1775.0	1775.0	1773.4	1767.4	1758.5	1752.7	1749.5	1748.1	1746.7	1743.7	1739.2
17.5°	1801.7	1800.3	1795.8	1786.9	1776.4	1771.9	1769.0	1769.0	1769.0	1767.4	1764.5
20°	1840.4	1840.4	1834.5	1819.5	1810.7	1806.2	1801.7	1801.7	1801.7	1797.2	1792.7
22.5°	1903.0	1904.4	1895.6	1877.6	1865.8	1856.8	1850.9	1846.3	1842.0	1839.0	1831.6
25°	1987.9	1986.4	1975.9	1953.6	1944.7	1935.8	1923.8	1916.4	1910.4	1905.9	1897.0
27.5°	2077.2	2075.8	2063.8	2044.5	2038.6	2025.0	2016.2	2005.7	1998.3	1990.9	1981.9
30°	2191.9	2184.4	2175.4	2160.7	2157.5	2147.2	2135.4	2120.4	2108.5	2096.6	2086.1
32.5°	2294.6	2294.6	2281.2	2273.8	2279.7	2275.2	2276.8	2267.9	2260.3	2256.0	2245.5
35°	2437.6	2437.6	2431.6	2422.6	2424.2	2413.7	2412.3	2413.7	2419.7	2419.7	2407.7
37.5°	2628.1	2631.1	2611.8	2608.8	2601.3	2586.5	2579.0	2582.0	2595.5	2602.7	2586.5
40°	2865.0	2870.9	2865.0	2845.6	2836.6	2811.2	2796.5	2796.5	2806.8	2814.3	2808.3
42.5°	3098.8	3109.2	3098.8	3083.8	3076.3	3057.0	3049.6	3055.6	3068.9	3077.9	3068.9
45°	3359.3	3366.7	3353.4	3335.4	3326.6	3316.2	3311.6	3316.2	3330.9	3339.9	3336.9
47.5°	3615.4	3625.7	3609.4	3601.9	3601.9	3591.6	3603.6	3615.4	3628.9	3649.6	3640.7
50°	3865.5	3878.9	3868.6	3870.0	3881.9	3901.2	3923.5	3947.4	3971.2	3993.5	3996.6
52.5°	4088.8	4109.7	4111.3	4138.0	4175.2	4205.1	4267.6	4319.7	4376.4	4395.6	4386.8
55°	4324.3	4352.5	4389.7	4431.3	4490.9	4552.0	4657.7	4751.6	4826.0	4872.1	4864.7
57.5°	4660.6	4689.0	4727.7	4796.2	4885.5	4969.0	5113.3	5259.2	5372.5	5442.4	5408.2
60°	5097.0	5126.7	5177.4	5250.4	5366.5	5479.7	5677.6	5887.6	6063.4	6143.8	6081.3
62.5°	5674.8	5703.0	5735.8	5832.5	5962.1	6108.0	6356.6	6626.2	6849.5	6927.0	6839.2
65°	6498.2	6532.5	6542.9	6621.8	6748.2	6883.8	7151.9	7455.7	7710.2	7836.9	7661.0
67.5°	7425.7	7439.3	7480.9	7573.3	7702.7	7824.9	8036.3	8323.8	8567.9	8637.9	8450.3
70°	7969.4	7996.2	8069.0	8197.2	8352.0	8544.0	8775.0	9084.6	9361.5	9394.4	9156.1
72.5°	7477.9	7533.0	7662.6	7862.1	8186.8	8527.7	8925.3	9382.4	9779.9	9826.2	9443.5
75°	5997.9	6060.3	6215.3	6434.1	6818.2	7324.6	7899.3	8585.8	9181.3	9257.4	8751.1
77.5°	3197.0	3274.4	3499.3	3794.1	4342.0	5012.2	5704.4	6487.6	6994.1	7165.2	6800.3
80°	805.6	847.2	955.9	1128.7	1499.5	2040.1	2637.1	3479.9	4108.3	4374.7	4108.3
82.5°	312.7	344.1	373.8	394.5	430.4	504.8	696.8	1136.1	1530.7	1885.2	1632.0
85°	120.6	128.1	184.6	209.9	209.9	230.9	265.0	312.7	387.2	422.9	354.4
87.5°	47.6	52.1	64.0	98.3	101.2	89.3	95.3	107.2	81.8	68.5	77.4
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: P270492

CATALOG NUMBER: NAV-AF-04-D-UNV-5WQ-7027-1200

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1719.8	1719.8	1719.8	1719.8	1719.8	1719.8	1719.8	1719.8
2.5°	1712.3	1710.9	1707.9	1709.5	1707.9	1707.9	1707.9	1707.9
5°	1710.9	1710.9	1707.9	1707.9	1707.9	1709.5	1707.9	1707.9
7.5°	1709.5	1707.9	1705.0	1703.5	1703.5	1702.0	1702.0	1702.0
10°	1706.4	1703.5	1700.5	1699.0	1699.0	1696.0	1696.0	1696.0
12.5°	1713.8	1709.5	1706.4	1705.0	1705.0	1705.0	1706.4	1706.4
15°	1734.7	1725.9	1721.3	1719.8	1721.3	1724.2	1725.9	1727.4
17.5°	1757.1	1748.1	1740.6	1737.7	1739.2	1743.7	1748.1	1751.1
20°	1785.3	1777.9	1769.0	1766.0	1766.0	1771.9	1775.0	1779.5
22.5°	1825.5	1819.5	1812.2	1807.7	1804.8	1812.2	1816.6	1819.5
25°	1889.6	1883.7	1877.6	1873.2	1871.7	1879.2	1882.2	1883.7
27.5°	1974.5	1968.5	1965.5	1964.1	1959.6	1962.5	1967.0	1965.5
30°	2084.6	2089.1	2084.6	2084.6	2077.2	2080.1	2077.2	2074.2
32.5°	2232.1	2227.5	2214.2	2205.2	2194.9	2194.9	2190.3	2185.9
35°	2379.5	2364.6	2357.2	2361.6	2357.2	2360.1	2352.8	2345.3
37.5°	2553.7	2544.8	2543.3	2556.7	2553.7	2556.7	2556.7	2546.2
40°	2784.4	2778.5	2789.0	2811.2	2820.1	2818.7	2821.8	2808.3
42.5°	3049.6	3039.1	3043.5	3063.0	3073.5	3076.3	3074.9	3063.0
45°	3314.6	3317.6	3317.6	3338.5	3348.8	3354.8	3344.4	3339.9
47.5°	3613.9	3618.4	3608.0	3621.3	3624.3	3634.7	3625.7	3618.4
50°	3959.4	3943.0	3919.1	3923.5	3923.5	3920.7	3910.2	3901.2
52.5°	4345.0	4307.8	4263.0	4248.3	4231.8	4215.4	4194.6	4178.2
55°	4784.3	4720.2	4639.8	4602.6	4571.4	4534.1	4486.4	4470.1
57.5°	5293.5	5183.3	5076.1	5009.0	4928.7	4879.6	4818.5	4815.5
60°	5898.1	5749.2	5560.1	5460.3	5379.9	5321.7	5275.7	5257.8
62.5°	6596.4	6340.2	6136.3	6029.2	5935.3	5899.6	5841.5	5849.0
65°	7312.7	7052.1	6854.1	6767.7	6679.8	6656.0	6602.5	6621.8
67.5°	8088.5	7874.1	7656.7	7576.2	7495.7	7472.0	7416.9	7433.3
70°	8783.8	8511.4	8264.1	8106.3	7969.4	7859.1	7789.2	7760.8
72.5°	8922.3	8450.3	8061.7	7667.0	7439.3	7239.7	7157.9	7126.6
75°	8017.0	7284.4	6730.5	6267.4	6011.3	5720.9	5689.7	5646.4
77.5°	6236.0	5402.2	4732.1	4136.5	3792.6	3438.3	3316.2	3223.7
80°	3719.6	2858.9	2215.7	1553.1	1267.1	1019.9	958.9	894.9
82.5°	1331.2	853.2	574.7	448.3	400.6	369.3	345.5	314.1
85°	321.7	271.0	256.0	232.3	229.2	195.0	138.5	123.5
87.5°	102.8	93.9	95.3	90.8	95.3	71.4	58.1	52.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)