

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: P196791

Luminaire Tested: **NAV-AF-03-D-UNV-T3-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P196791  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-AF-03-D-UNV-T3-7030  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17524.1 lumens  
Efficiency: N/A  
Efficacy: 105.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G3

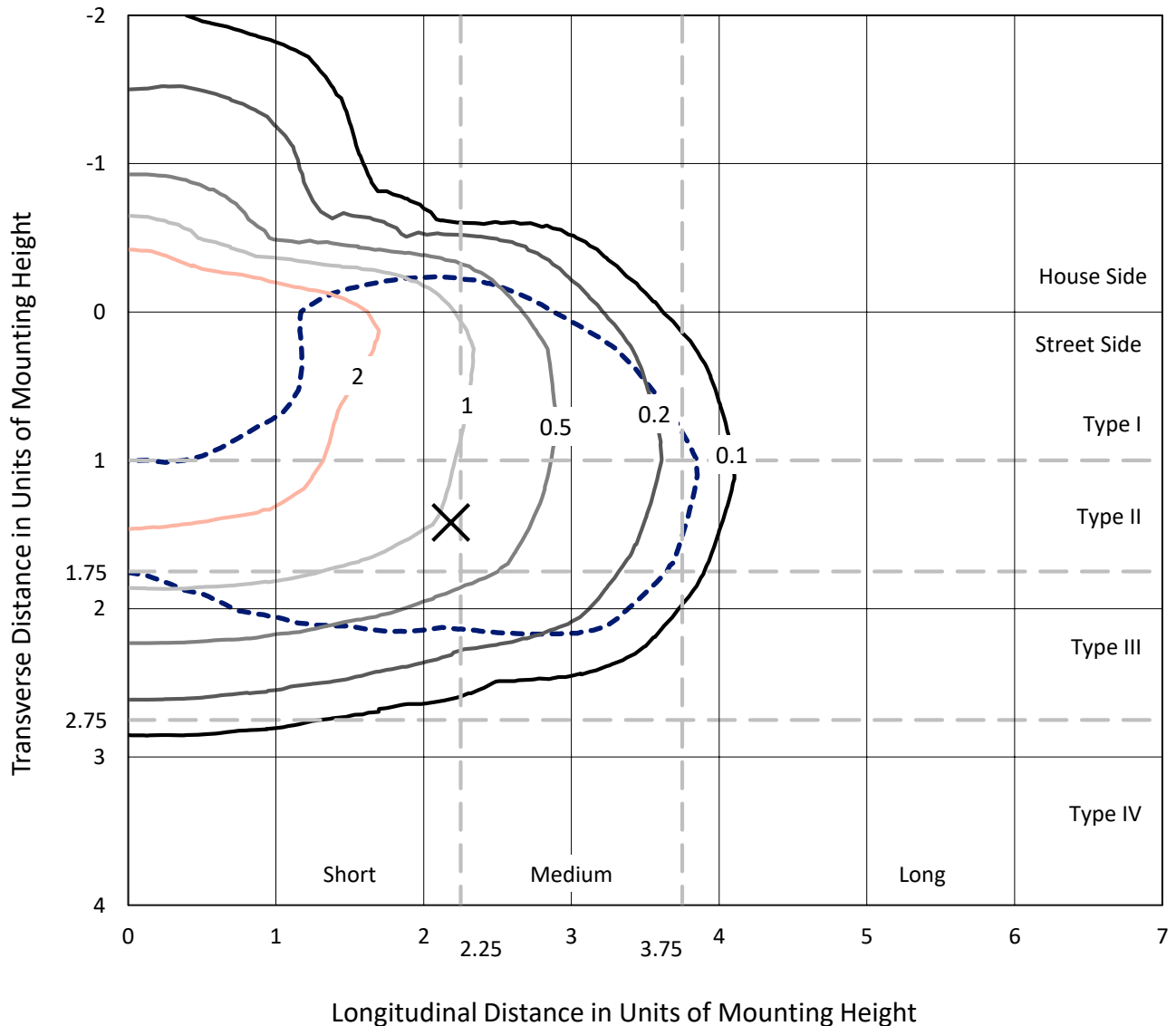
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P196791  
 CATALOG NUMBER: NAV-AF-03-D-UNV-T3-7030

### Iso-Footcandle Lines of Horizontal Illumination

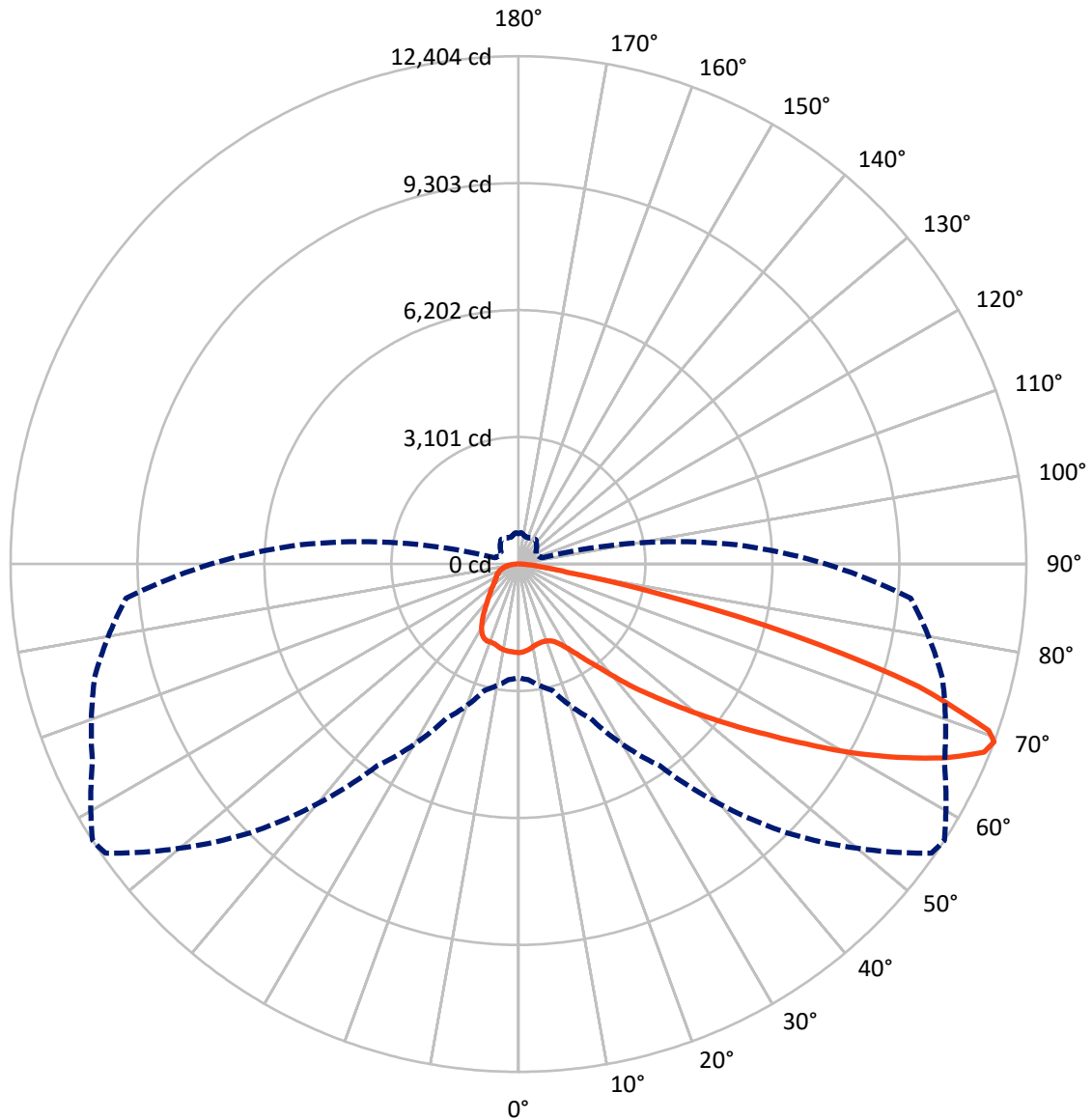
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 fc  
 Type III - Short - Semi-Cutoff

REPORT NUMBER: P196791  
CATALOG NUMBER: NAV-AF-03-D-UNV-T3-7030

### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P196791

CATALOG NUMBER: NAV-AF-03-D-UNV-T3-7030

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3867.0	0.0	3867.0
	% Fixture	22.1	0.0	22.1
<b>Street Side</b>	Lumens	13657.1	0.0	13657.1
	% Fixture	77.9	0.0	77.9
<b>Total</b>	Lumens	17524.1	0.0	17524.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	202.7	1.2
10°-20°	576.4	3.3
20°-30°	958.8	5.5
30°-40°	1565.6	8.9
40°-50°	2642.5	15.1
50°-60°	4110.5	23.5
60°-70°	4896.5	27.9
70°-80°	2281.1	13.0
80°-90°	290.1	1.7
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°	17524.1	100.0
0°-180°	17524.1	100.0



REPORT NUMBER: P196791

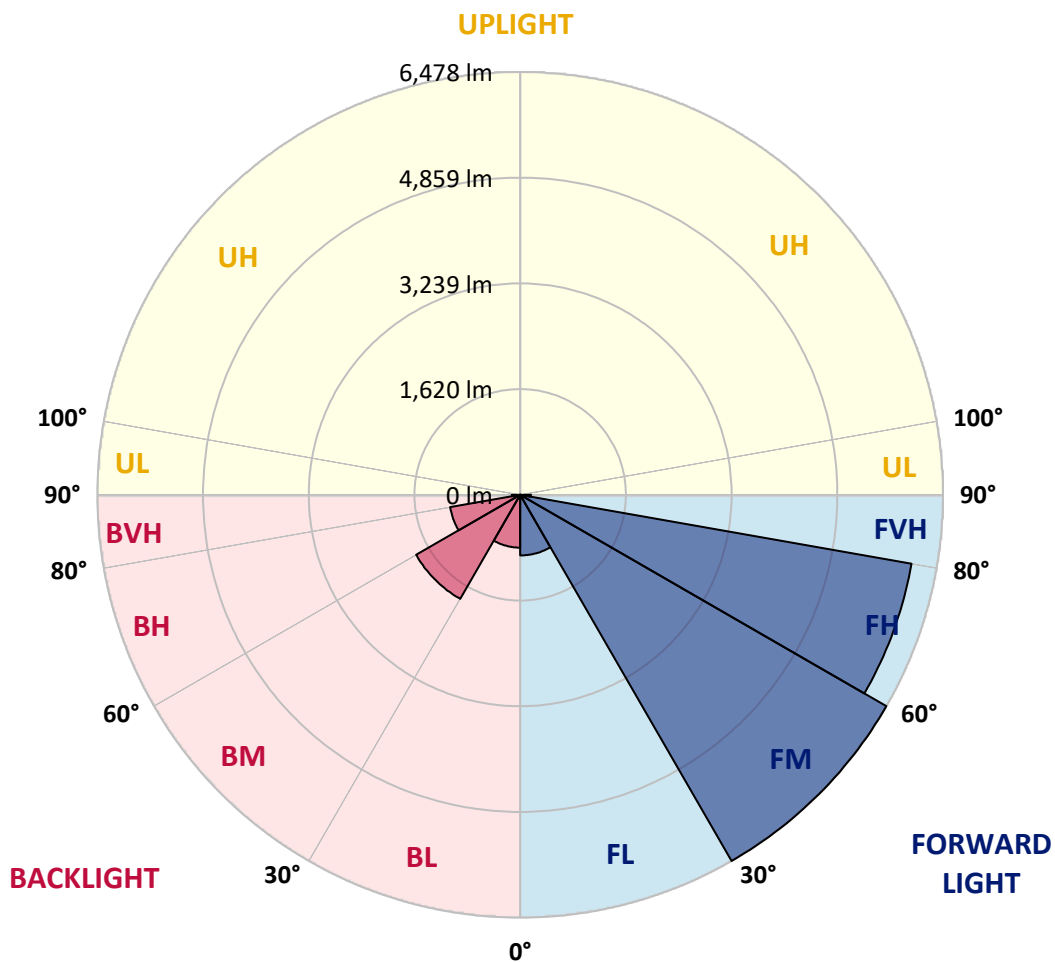
CATALOG NUMBER: NAV-AF-03-D-UNV-T3-7030

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	928.0	5.3			
FM	(30°-60°)	6478.1	37.0			
FH	(60°-80°)	6087.9	34.7			G3/7500
FVH	(80°-90°)	163.1	0.9			G2/225
BL	(0°-30°)	809.8	4.6	B2/1000		
BM	(30°-60°)	1840.4	10.5	B2/2500		
BH	(60°-80°)	1089.7	6.2	B3/2500		G3/2500
BVH	(80°-90°)	127.1	0.7			G2/225
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





REPORT NUMBER: P196791

CATALOG NUMBER: NAV-AF-03-D-UNV-T3-7030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	2165.3	2165.3	2165.3	2165.3	2165.3	2165.3	2165.3	2165.3	2165.3	2165.3	2165.3
2.5°	2153.0	2153.0	2158.5	2158.5	2158.5	2156.3	2149.5	2151.9	2147.3	2144.0	2138.3
5°	2109.1	2111.4	2118.1	2120.4	2123.8	2124.9	2124.9	2123.8	2124.9	2124.9	2121.5
7.5°	2048.6	2050.8	2058.7	2063.2	2073.3	2082.3	2086.8	2086.8	2092.4	2096.8	2098.0
10°	2011.6	2011.6	2016.1	2016.1	2023.9	2028.4	2043.0	2041.8	2057.6	2072.1	2078.8
12.5°	2007.1	2007.1	2004.8	1997.0	1992.5	1991.4	2006.0	2008.1	2031.7	2057.6	2069.9
15°	2021.7	2021.7	2015.0	1999.2	1982.4	1974.6	1989.2	1993.7	2019.4	2049.7	2068.9
17.5°	2068.9	2067.6	2053.1	2021.7	1992.5	1980.1	1984.7	1989.2	2012.7	2047.5	2071.0
20°	2173.1	2173.1	2141.7	2084.4	2034.0	2004.8	1998.2	2001.5	2018.3	2050.8	2081.2
22.5°	2355.9	2359.4	2303.3	2209.0	2122.7	2060.9	2034.0	2037.3	2045.3	2076.7	2110.4
25°	2625.3	2616.3	2536.7	2403.1	2268.4	2163.0	2108.0	2111.4	2111.4	2140.6	2175.4
27.5°	2910.2	2912.5	2798.0	2654.5	2477.1	2320.1	2232.6	2231.5	2230.3	2258.4	2295.4
30°	3232.2	3233.3	3100.9	2934.9	2731.8	2531.0	2399.8	2398.7	2388.5	2423.3	2471.6
32.5°	3584.5	3583.3	3429.6	3242.3	3016.7	2789.1	2618.5	2617.5	2609.5	2656.6	2715.0
35°	3974.9	3974.9	3822.3	3591.3	3347.7	3094.2	2896.8	2895.6	2900.1	2964.1	3019.1
37.5°	4445.0	4455.0	4271.1	3990.5	3724.7	3454.3	3224.3	3217.5	3184.0	3291.7	3382.5
40°	4935.2	4963.3	4772.6	4445.0	4157.8	3878.3	3624.9	3620.5	3591.3	3705.6	3852.6
42.5°	5465.9	5529.8	5317.8	4983.6	4670.5	4368.7	4114.0	4101.7	3989.5	4167.9	4397.9
45°	6161.4	6202.9	5895.6	5592.7	5297.7	4953.2	4650.3	4584.1	4471.9	4700.8	4999.1
47.5°	6635.0	6614.8	6423.0	6219.8	6030.2	5700.4	5234.8	5150.7	5013.8	5316.7	5645.4
50°	6928.9	6943.4	6835.8	6825.7	6815.6	6585.6	5894.4	5793.5	5635.3	5994.3	6378.0
52.5°	7122.9	7056.7	7075.8	7304.7	7581.8	7471.9	6640.6	6528.3	6365.7	6724.7	7157.8
55°	7042.2	6954.7	7130.8	7581.8	8233.7	8258.4	7459.5	7344.0	7204.9	7501.0	8095.7
57.5°	6707.9	6751.5	7029.8	7657.0	8679.0	8962.9	8400.8	8283.1	8009.2	8309.9	8986.5
60°	6237.8	6326.4	6751.5	7538.1	8991.0	9511.4	9434.1	9355.6	8884.3	9097.5	9922.2
62.5°	5733.0	5820.5	6343.3	7335.0	8850.6	9997.2	10448.3	10400.1	9850.3	9855.9	10515.5
65°	4986.8	5022.7	5556.8	6780.7	8461.4	10435.9	11463.6	11421.0	10773.6	10503.2	10681.6
67.5°	3766.2	3811.1	4249.7	5352.6	7276.6	10198.1	12274.7	12267.9	11329.0	10743.4	10286.8
69°	2781.2	2836.2	3194.0	4155.5	6016.8	9291.6	12312.9	12403.7	11479.4	10718.7	9619.1
70°	2035.2	2098.0	2429.0	3298.4	5011.5	8290.8	11986.4	12181.7	11422.1	10562.7	9098.7
72.5°	865.0	886.3	1049.0	1488.7	2542.3	4999.1	9817.8	10228.5	10315.9	9464.4	7108.4
75°	541.9	548.6	612.5	764.0	1130.9	2067.6	6357.8	6917.6	7701.9	7342.9	4759.2
77.5°	408.4	414.0	451.0	526.2	702.3	771.9	2949.5	3517.2	4411.4	4319.3	2368.3
80°	313.0	316.5	341.1	382.5	494.7	483.6	957.0	1202.7	1841.0	1624.4	838.0
82.5°	245.8	246.8	268.1	276.0	345.6	325.4	480.2	535.2	743.8	618.2	409.5
85°	217.7	221.0	242.3	201.9	221.0	196.3	263.7	286.0	394.9	372.5	154.8
87.5°	111.1	116.7	203.1	172.7	111.1	93.1	115.6	124.5	160.4	173.9	75.2
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: P196791

CATALOG NUMBER: NAV-AF-03-D-UNV-T3-7030

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2165.3	2165.3	2165.3	2165.3	2165.3	2165.3	2165.3	2165.3	2165.3	2165.3	2165.3
2.5°	2139.6	2140.6	2144.0	2149.5	2158.5	2169.8	2183.2	2196.6	2204.6	2210.1	2207.9
5°	2121.5	2122.7	2129.4	2139.6	2150.7	2167.4	2190.0	2206.8	2219.2	2227.0	2225.8
7.5°	2099.1	2102.4	2116.0	2127.2	2142.8	2156.3	2174.3	2190.0	2202.3	2210.1	2209.0
10°	2082.3	2085.6	2102.4	2117.0	2130.4	2132.7	2129.4	2124.9	2123.8	2129.4	2127.2
12.5°	2074.4	2081.2	2096.8	2106.9	2101.3	2080.0	2055.2	2045.3	2041.8	2053.1	2054.2
15°	2076.7	2082.3	2095.7	2089.0	2058.7	2022.8	2009.3	2017.2	2023.9	2030.7	2031.7
17.5°	2082.3	2085.6	2089.0	2064.4	2021.7	1998.2	1993.7	1985.8	1965.6	1954.3	1953.2
20°	2092.4	2096.8	2091.2	2052.0	2013.8	1982.4	1928.5	1880.4	1834.4	1809.7	1799.5
22.5°	2127.2	2130.4	2113.6	2075.5	2017.2	1915.1	1806.3	1723.2	1652.5	1614.5	1599.9
25°	2195.6	2201.1	2177.6	2129.4	1976.8	1798.4	1644.7	1532.5	1443.9	1397.9	1385.5
27.5°	2315.6	2321.2	2295.4	2169.8	1882.5	1642.5	1456.2	1345.2	1268.8	1229.6	1224.0
30°	2495.2	2502.9	2479.4	2168.7	1739.0	1443.9	1272.3	1207.2	1163.4	1136.6	1135.3
32.5°	2744.1	2773.3	2676.9	2130.4	1561.7	1243.1	1133.1	1110.7	1089.4	1071.4	1071.4
35°	3060.6	3128.9	2872.1	2050.8	1366.5	1106.2	1055.7	1034.3	1007.5	988.4	986.2
37.5°	3438.6	3545.3	3011.1	1909.6	1198.2	1040.0	1008.6	973.8	931.2	894.2	885.2
40°	3958.0	3982.7	3079.6	1679.6	1072.5	1004.1	964.9	921.0	867.2	825.7	821.2
42.5°	4479.7	4399.0	3066.2	1432.7	1000.7	971.6	920.0	871.7	823.5	788.8	788.8
45°	5073.2	4762.5	2964.1	1184.7	935.7	934.5	878.5	832.4	795.4	769.6	764.0
47.5°	5640.9	5089.0	2788.0	1001.9	868.4	897.6	851.5	814.5	780.8	756.2	751.7
50°	6329.8	5467.0	2600.6	874.0	803.3	865.0	840.3	821.2	788.8	746.0	741.6
52.5°	7014.1	5909.1	2455.8	777.5	746.0	839.2	847.1	849.3	819.0	736.0	730.4
55°	7749.0	6381.4	2303.3	702.3	698.9	826.9	862.7	860.5	845.8	738.3	729.2
57.5°	8447.9	6855.9	2075.5	649.5	661.9	814.5	866.1	830.3	804.3	749.4	734.9
60°	9026.8	7248.6	1741.1	612.5	630.5	789.8	843.7	789.8	746.0	747.3	733.6
62.5°	9308.5	7358.6	1331.7	569.9	604.8	749.4	811.1	759.6	719.2	751.7	743.8
65°	9094.2	7045.6	949.1	530.7	573.3	702.3	792.0	733.6	705.7	774.1	765.2
67.5°	8324.6	6193.0	688.9	495.9	543.0	654.0	756.2	710.1	692.2	790.9	770.8
69°	7506.6	5347.0	596.9	475.8	521.7	628.2	732.6	697.8	682.1	767.3	738.3
70°	6826.7	4695.2	550.8	463.4	503.6	613.7	714.7	690.0	672.1	739.3	704.5
72.5°	4894.9	3034.7	463.4	426.3	456.6	581.1	675.3	660.8	633.9	667.6	645.0
75°	2957.3	1584.1	393.8	388.2	407.2	536.3	629.4	611.5	584.5	588.0	576.7
77.5°	1358.6	731.5	329.9	343.3	355.6	480.2	573.3	553.1	528.4	519.4	520.5
80°	595.7	427.4	276.0	292.9	299.6	431.9	512.8	490.2	463.4	511.6	474.5
82.5°	322.0	247.9	215.5	226.6	245.8	375.9	445.4	416.3	390.4	454.4	366.9
85°	130.1	126.7	145.9	157.2	170.6	270.4	372.5	342.2	310.8	278.3	271.5
87.5°	56.0	60.5	71.8	76.3	90.9	168.3	250.2	218.7	219.9	188.5	185.0
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)