

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: McGRAW-EDISON

Report Number: P302840

Luminaire Tested: **GLNA-AF-04-LED-E1-T4W-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P302840  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-04-LED-E1-T4W-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16679.4 lumens  
Efficiency: N/A  
Efficacy: 97.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G3

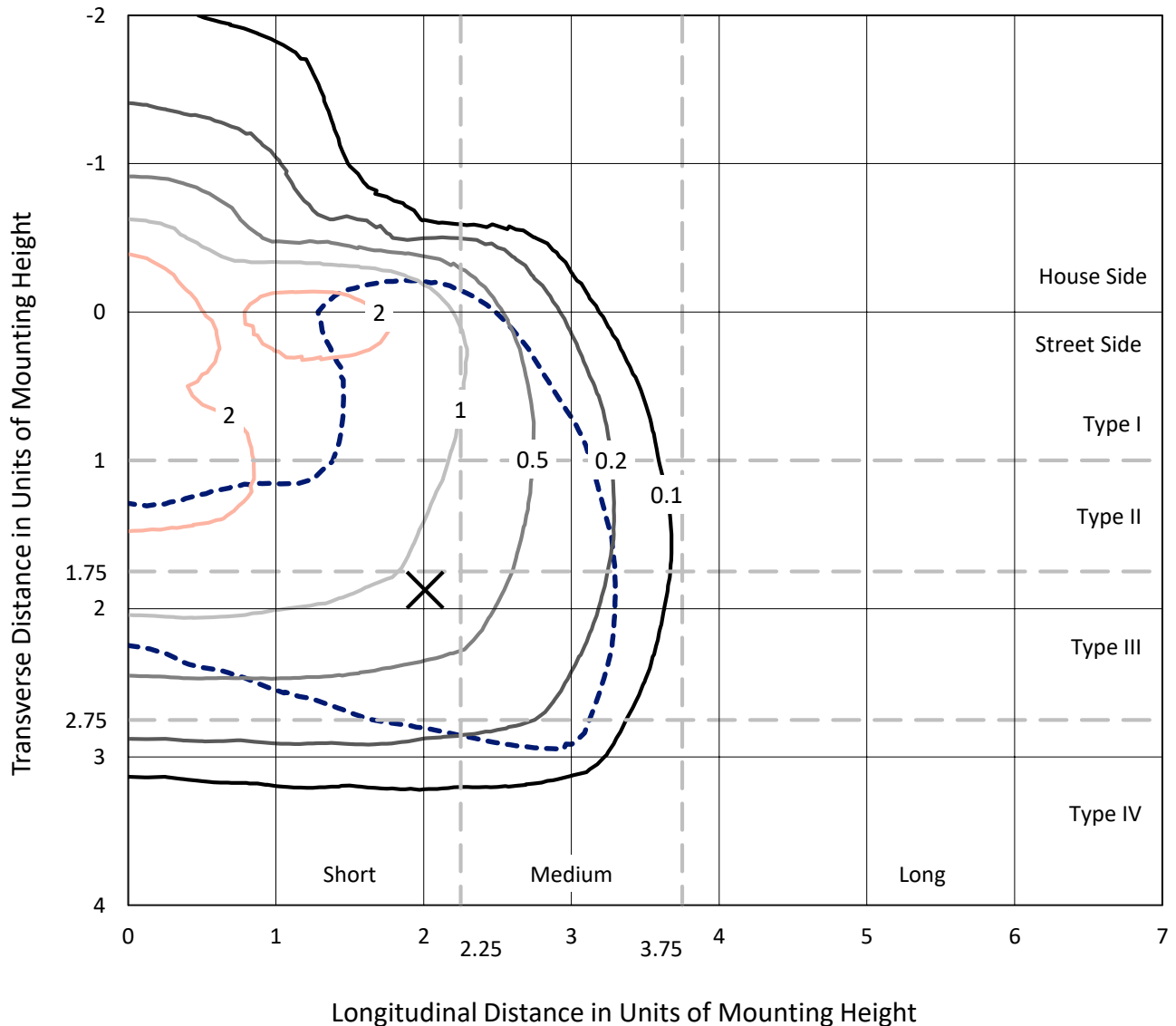
Input Watts (W): 171  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

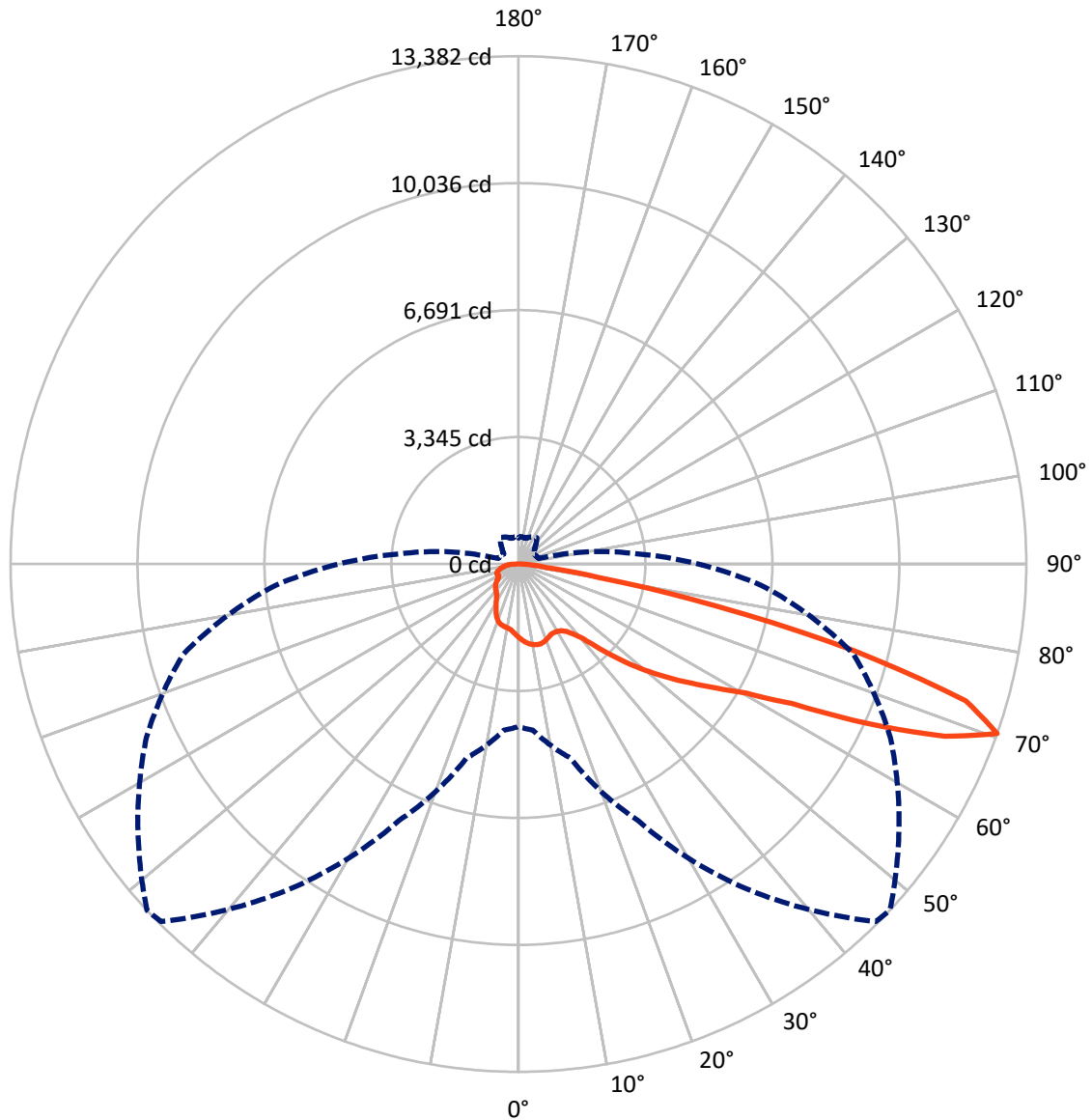
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.6 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3479.6	0.0	3479.6
	% Fixture	20.9	0.0	20.9
<b>Street Side</b>	Lumens	13199.7	0.0	13199.7
	% Fixture	79.1	0.0	79.1
<b>Total</b>	Lumens	16679.4	0.0	16679.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	185.4	1.1
10°-20°	544.0	3.3
20°-30°	803.4	4.8
30°-40°	1167.7	7.0
40°-50°	2101.4	12.6
50°-60°	3640.5	21.8
60°-70°	5196.1	31.2
70°-80°	2667.4	16.0
80°-90°	373.4	2.2
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°	16679.4	100.0
0°-180°	16679.4	100.0



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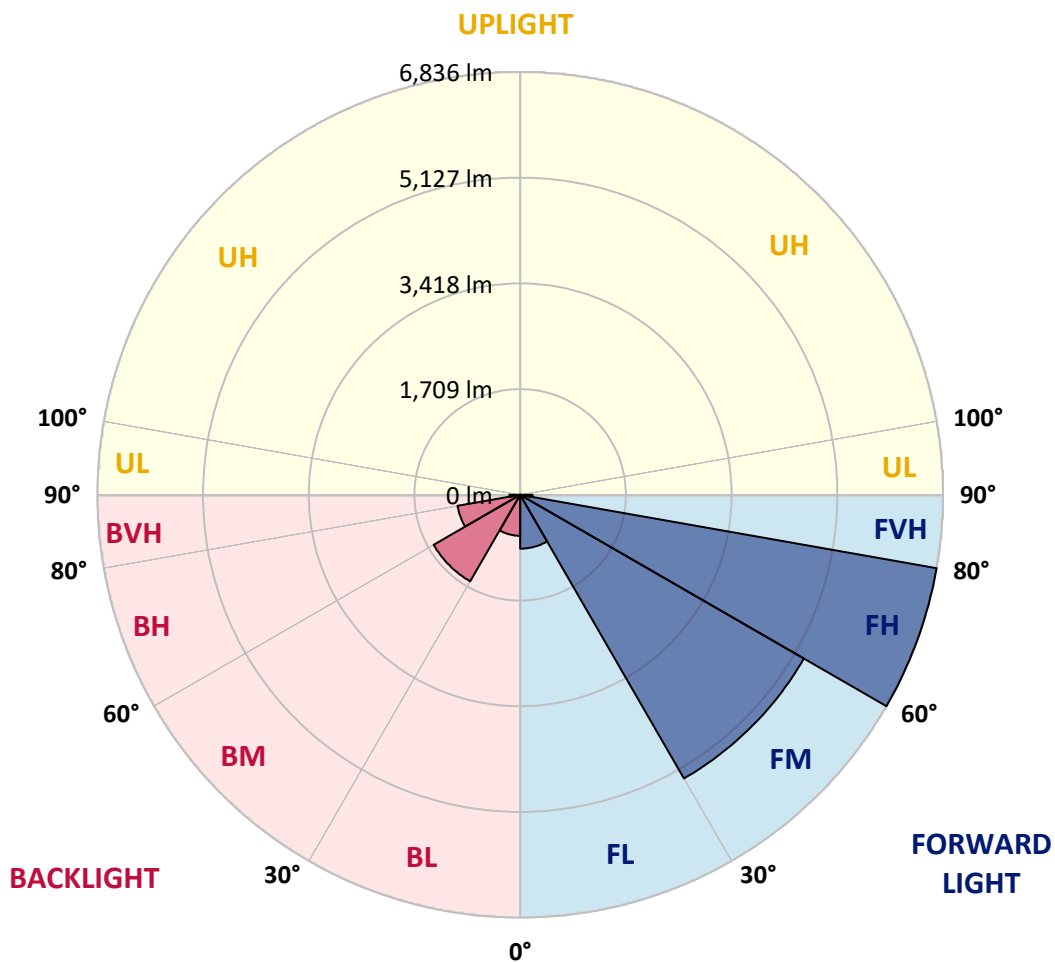
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	870.3	5.2			
FM	(30°-60°)	5294.5	31.7			
FH	(60°-80°)	6835.7	41.0			G3/7500
FVH	(80°-90°)	199.3	1.2			G2/225
BL	(0°-30°)	662.5	4.0	B2/1000		
BM	(30°-60°)	1615.1	9.7	B2/2500		
BH	(60°-80°)	1027.8	6.2	B3/2500		G3/2500
BVH	(80°-90°)	174.2	1.0			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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	1935.3	1935.3	1935.3	1935.3	1935.3	1935.3	1935.3	1935.3	1935.3	1935.3	1935.3
2.5°	2049.0	2045.0	2043.4	2040.1	2036.1	2015.6	2011.6	1997.0	1976.8	1955.5	1933.7
5°	2183.8	2183.0	2173.8	2157.6	2131.7	2087.0	2076.5	2040.9	1993.0	1946.6	1900.5
7.5°	2302.1	2294.8	2277.8	2245.2	2199.9	2139.0	2124.5	2074.9	2009.1	1945.8	1883.3
10°	2388.9	2384.8	2347.6	2302.9	2243.6	2176.2	2159.2	2104.0	2031.8	1951.5	1873.6
12.5°	2438.4	2430.4	2387.2	2333.9	2263.3	2197.5	2180.3	2124.5	2043.4	1951.5	1859.8
15°	2435.2	2429.5	2386.4	2327.9	2256.8	2199.1	2183.8	2127.7	2040.9	1943.4	1842.0
17.5°	2370.3	2372.7	2336.3	2278.6	2220.1	2176.2	2162.5	2110.7	2024.5	1927.2	1821.0
20°	2256.8	2268.1	2243.6	2192.7	2160.0	2130.1	2121.2	2077.3	1999.4	1903.8	1798.1
22.5°	2143.1	2153.6	2143.9	2100.8	2095.9	2078.1	2073.3	2041.7	1977.6	1889.2	1784.4
25°	2059.5	2069.2	2067.6	2030.1	2045.0	2044.2	2040.1	2024.5	1972.7	1889.2	1786.8
27.5°	2036.9	2040.1	2036.9	2002.7	2022.9	2039.3	2036.1	2033.4	1987.3	1912.6	1817.8
30°	2114.8	2109.9	2084.6	2015.6	2034.5	2057.1	2053.9	2055.5	2031.0	1974.4	1886.8
32.5°	2425.5	2403.4	2323.9	2130.1	2080.5	2092.7	2094.3	2121.2	2125.3	2069.2	1993.8
35°	2890.4	2866.1	2762.9	2436.8	2224.2	2182.1	2182.1	2222.6	2246.8	2205.6	2160.0
37.5°	3383.0	3356.1	3301.1	2862.1	2526.0	2337.1	2333.1	2361.4	2396.1	2406.1	2417.4
40°	3942.8	3914.5	3929.9	3339.1	2947.3	2605.5	2547.9	2527.6	2621.7	2684.2	2775.3
42.5°	4555.6	4542.4	4548.1	3870.6	3426.7	3007.4	2925.4	2820.6	2934.3	3045.4	3236.2
45°	5122.7	5134.0	5128.3	4439.5	3960.8	3497.3	3410.5	3207.6	3318.9	3509.4	3820.4
47.5°	5619.4	5572.2	5645.2	5060.9	4558.9	4046.0	3938.7	3667.1	3779.7	4015.0	4540.8
50°	6222.2	6215.8	6108.8	5890.5	5281.7	4596.9	4456.5	4141.7	4316.9	4644.0	5449.0
52.5°	6856.1	6738.3	6640.2	6535.4	6048.7	5161.7	4989.5	4614.7	4948.3	5359.6	6555.9
55°	6985.7	6933.2	7054.7	7231.0	6787.9	5748.4	5547.9	5207.8	5659.2	6177.8	7832.2
57.5°	7263.3	7262.5	7514.2	7828.2	7549.0	6370.7	6168.6	5924.4	6458.3	7114.8	9187.3
60°	7450.9	7503.4	7971.0	8580.4	8296.3	7089.7	6903.8	6751.3	7367.3	8162.4	10449.9
62.5°	7549.0	7620.4	8258.3	8885.4	9352.7	8286.6	8100.9	7881.0	8569.8	9311.5	11188.3
65°	7141.0	7281.1	8213.6	9149.3	10277.9	10226.7	10143.2	9757.0	10073.4	10219.5	10921.5
67.5°	6011.2	6154.9	7240.7	8903.2	10938.5	12098.1	12115.9	11456.2	10998.6	10297.3	9182.4
70°	4282.9	4395.6	5294.1	7464.6	10435.3	13320.9	13381.8	12239.1	10814.2	9132.0	6415.5
72.5°	2033.4	2102.4	2952.9	4858.3	8280.9	12205.1	12322.9	11239.5	9195.4	6761.0	3499.7
75°	747.3	768.3	998.0	2066.8	4803.0	9000.8	9139.6	8057.0	6095.6	3366.1	1333.2
77.5°	447.9	461.7	560.0	872.4	1889.2	5144.8	5349.9	4381.8	2664.0	1252.9	655.7
80°	313.2	322.9	401.6	542.8	892.6	1960.6	2143.1	1788.4	1061.3	792.9	477.0
82.5°	211.8	216.7	282.4	366.8	593.2	700.2	755.4	795.3	715.8	589.9	302.6
85°	138.8	143.6	191.6	241.7	377.3	361.9	370.0	468.1	522.6	400.7	167.9
87.5°	79.5	82.7	115.3	129.1	185.1	153.3	155.0	246.6	334.5	270.3	102.1
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°	1935.3	1935.3	1935.3	1935.3	1935.3	1935.3	1935.3	1935.3	1935.3	1935.3	1935.3
2.5°	1928.0	1917.5	1894.0	1879.2	1865.5	1862.2	1856.6	1855.8	1855.0	1855.0	1852.5
5°	1884.9	1867.1	1830.7	1810.2	1793.3	1791.6	1790.8	1794.9	1796.5	1798.1	1795.7
7.5°	1857.4	1833.1	1787.6	1758.5	1738.3	1733.2	1741.5	1760.1	1772.2	1777.1	1774.7
10°	1840.4	1810.2	1757.7	1725.9	1708.9	1706.5	1717.0	1739.1	1764.2	1773.9	1773.0
12.5°	1821.0	1786.8	1730.7	1697.6	1687.9	1692.7	1706.5	1726.7	1752.8	1768.2	1769.0
15°	1801.3	1761.7	1704.1	1674.9	1670.9	1677.4	1690.3	1705.7	1725.9	1741.5	1743.1
17.5°	1777.9	1736.4	1679.0	1648.8	1645.6	1648.8	1649.6	1657.7	1670.9	1685.5	1689.5
20°	1752.8	1710.5	1650.4	1620.5	1606.0	1593.0	1578.2	1579.8	1583.9	1598.7	1601.9
22.5°	1734.8	1692.7	1628.6	1587.1	1548.3	1509.2	1480.1	1476.1	1477.7	1489.8	1493.8
25°	1736.4	1691.9	1622.9	1551.5	1466.4	1403.8	1364.8	1358.3	1357.5	1366.4	1372.3
27.5°	1768.2	1723.5	1644.0	1514.9	1377.1	1284.4	1243.2	1238.4	1231.9	1234.3	1240.8
30°	1838.8	1797.3	1695.2	1477.7	1280.4	1167.7	1124.6	1119.8	1110.9	1106.8	1111.7
32.5°	1953.9	1919.9	1769.8	1441.8	1183.9	1067.8	1024.1	1013.6	1007.9	1003.1	1007.1
35°	2145.5	2130.9	1869.5	1403.0	1098.8	990.7	951.1	934.9	926.8	935.7	942.2
37.5°	2445.7	2453.8	2000.2	1342.1	1033.0	939.7	906.3	887.7	875.6	882.9	890.2
40°	2871.0	2876.6	2144.7	1256.1	976.1	909.6	874.0	857.0	839.8	826.8	826.0
42.5°	3429.1	3371.7	2286.7	1162.9	910.4	891.0	851.4	830.1	804.2	768.3	761.1
45°	4091.3	3889.4	2394.5	1055.6	836.5	868.3	826.0	796.9	756.2	717.4	713.4
47.5°	4854.2	4445.1	2447.3	944.6	767.5	834.9	795.3	748.9	697.7	678.3	675.9
50°	5785.6	5104.9	2472.4	836.5	707.7	791.3	750.6	696.1	653.3	649.2	646.8
52.5°	6846.4	5898.6	2480.8	748.1	658.1	734.4	714.2	661.4	627.1	630.6	630.6
55°	7956.5	6718.1	2370.3	684.0	612.6	675.9	689.7	647.6	619.0	632.2	637.1
57.5°	8975.4	7444.4	2022.9	634.7	569.7	631.4	680.8	660.5	641.1	693.7	696.9
60°	9757.8	7873.5	1510.8	589.9	537.9	615.8	704.5	710.1	715.0	840.6	857.8
62.5°	9921.7	7730.9	1038.7	555.2	523.4	629.0	747.3	748.1	742.5	830.1	840.6
65°	9169.5	6827.5	755.4	535.5	511.2	652.5	784.0	766.7	729.5	796.1	776.4
67.5°	7281.9	5144.0	629.0	520.9	493.5	650.8	822.8	784.0	722.3	779.9	748.1
70°	4726.8	3110.3	560.0	508.8	472.2	619.9	845.4	782.4	701.0	725.5	688.0
72.5°	2306.1	1390.9	513.7	491.0	450.3	577.0	844.6	767.5	679.1	677.5	657.3
75°	902.3	637.1	471.4	464.1	413.1	528.2	822.0	746.5	653.3	627.1	619.9
77.5°	528.2	454.4	418.0	424.5	368.4	479.4	788.8	710.1	617.4	586.7	578.6
80°	384.6	340.1	356.3	366.8	314.8	430.9	744.1	665.4	577.8	593.2	581.9
82.5°	246.6	219.1	288.9	299.4	262.2	381.3	695.3	618.2	521.8	473.8	462.5
85°	125.9	138.8	215.1	228.0	202.1	313.2	636.3	556.0	458.4	394.3	400.7
87.5°	70.6	94.9	137.2	153.3	142.8	240.9	516.1	458.4	374.1	304.3	267.9
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)