

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: P299239

Luminaire Tested: **GLNA-AF-05-LED-E1-T3-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299239
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-T3-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16972.9 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 162
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

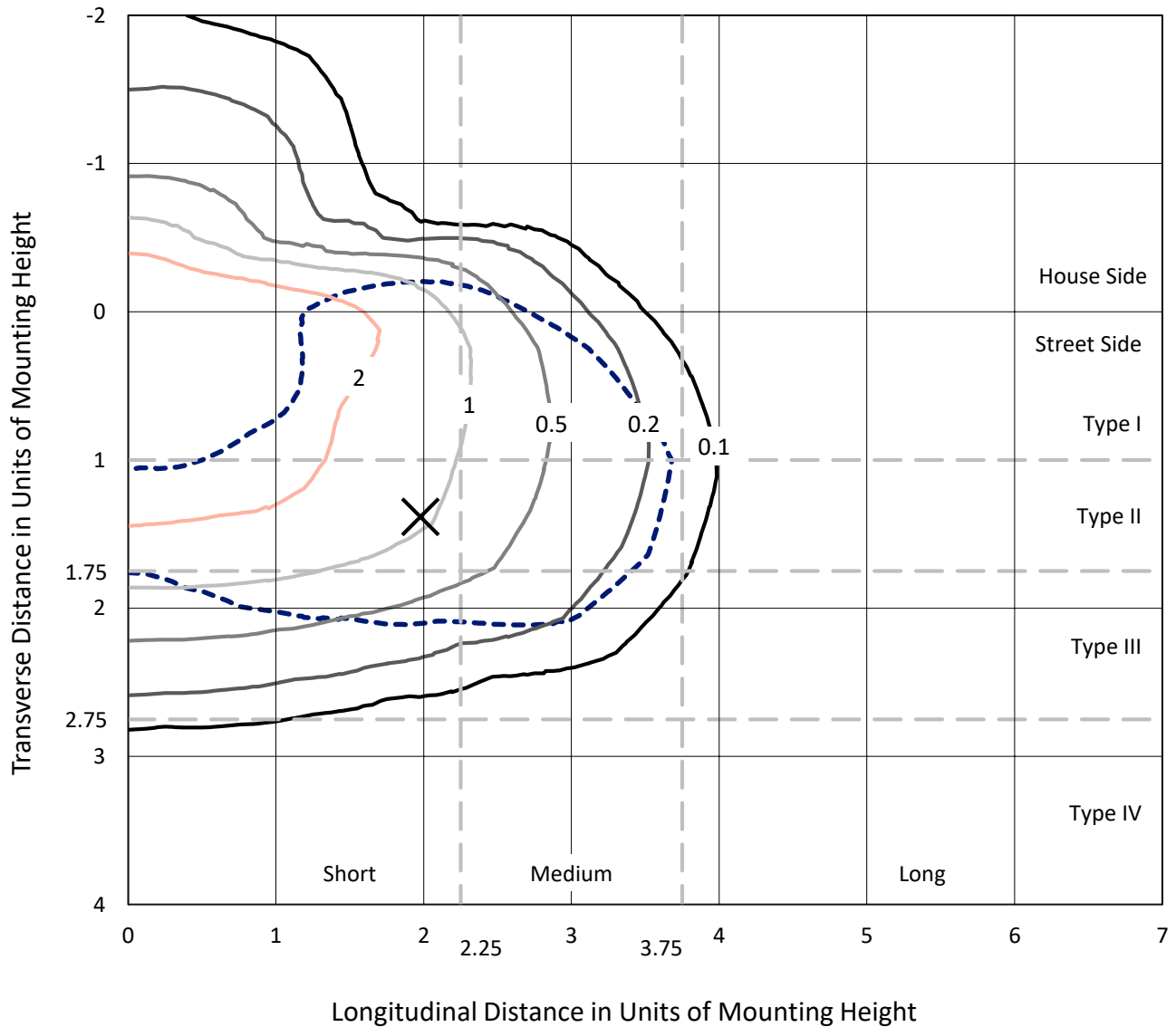


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Iso-Footcandle Lines of Horizontal Illumination

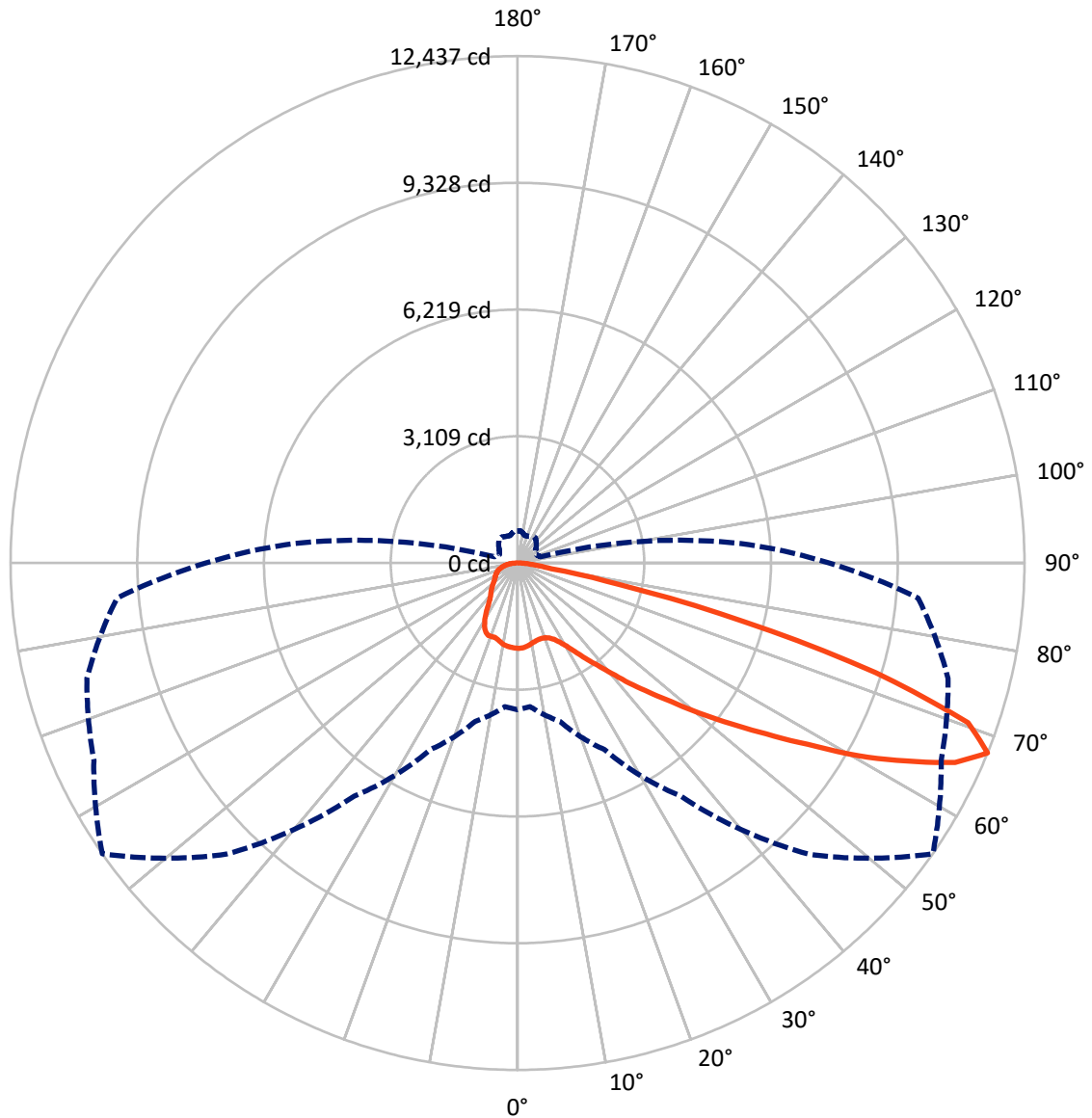
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3666.5	0.0	3666.5
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	13306.4	0.0	13306.4
	% Fixture	78.4	0.0	78.4
Total	Lumens	16972.9	0.0	16972.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.4	1.2
10°-20°	553.3	3.3
20°-30°	926.8	5.5
30°-40°	1524.1	9.0
40°-50°	2565.5	15.1
50°-60°	4037.8	23.8
60°-70°	4818.7	28.4
70°-80°	2069.3	12.2
80°-90°	282.1	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°	16972.9	100.0
0°-180°	16972.9	100.0



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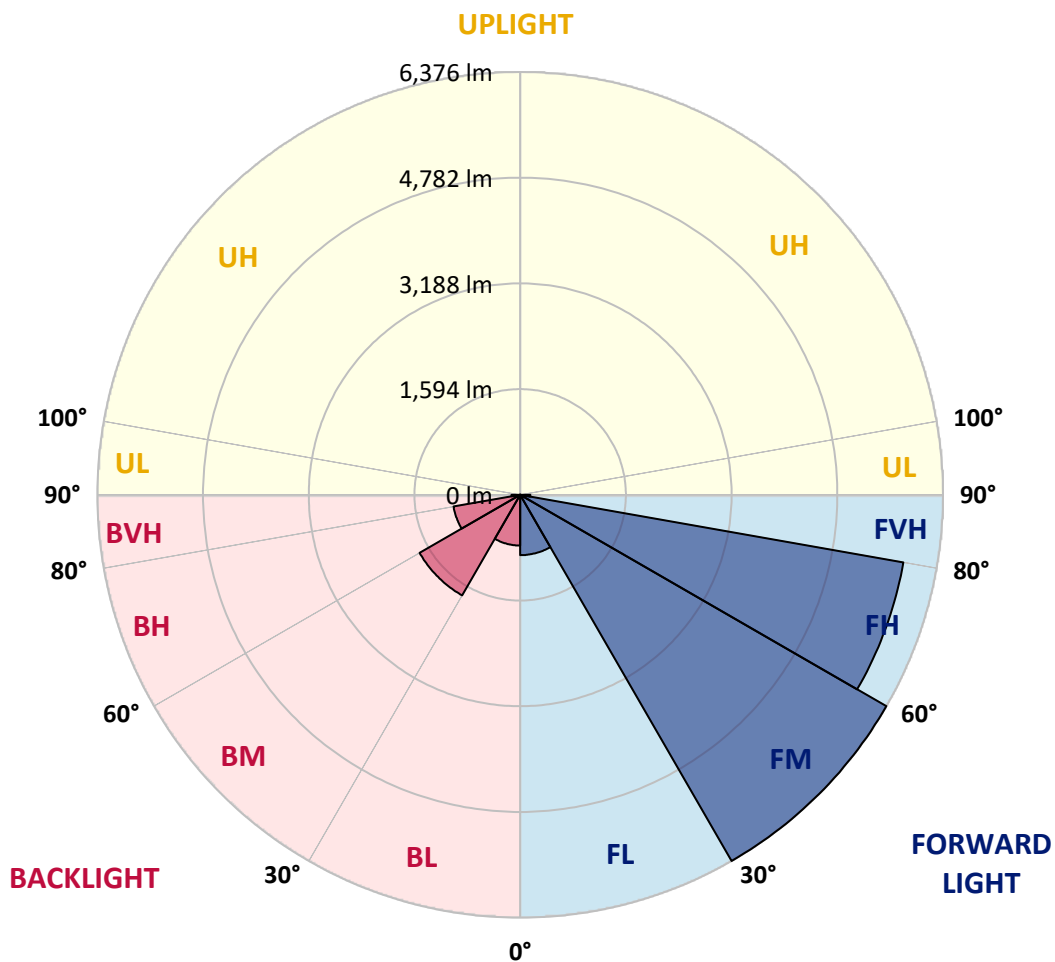
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	909.8	5.4			
FM (30°-60°)	6376.3	37.6			
FH (60°-80°)	5867.6	34.6			G3/7500
FVH (80°-90°)	152.7	0.9			G2/225
BL (0°-30°)	765.6	4.5	B2/1000		
BM (30°-60°)	1751.1	10.3	B2/2500		
BH (60°-80°)	1020.4	6.0	B3/2500		G3/2500
BVH (80°-90°)	129.4	0.8			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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2092.9	2092.9	2092.9	2092.9	2092.9	2092.9	2092.9	2092.9	2092.9	2092.9	2092.9
2.5°	2074.9	2075.7	2077.4	2083.9	2089.7	2088.0	2088.8	2085.6	2084.7	2079.8	2084.7
5°	2048.7	2051.1	2052.0	2062.6	2069.2	2070.8	2068.3	2064.2	2059.3	2054.4	2056.9
7.5°	1988.8	1995.4	1996.2	2011.0	2021.6	2035.6	2036.4	2037.2	2034.7	2031.5	2036.4
10°	1951.1	1952.8	1951.9	1962.6	1970.8	1986.4	1995.4	2011.0	2017.5	2019.2	2022.4
12.5°	1948.7	1947.0	1944.6	1944.6	1942.1	1948.7	1965.1	1987.2	2002.8	2007.7	2011.8
15°	1974.9	1974.1	1965.9	1953.6	1938.0	1933.1	1947.0	1971.6	1992.1	2002.8	2006.9
17.5°	2033.9	2029.0	2015.9	1988.0	1954.4	1941.3	1942.9	1963.4	1987.2	2001.1	2005.2
20°	2142.1	2142.1	2114.3	2061.8	2001.9	1970.8	1956.0	1968.3	1991.3	2010.1	2015.9
22.5°	2329.0	2330.7	2284.0	2197.9	2097.0	2030.6	1993.7	1991.3	2018.3	2039.7	2046.2
25°	2593.8	2587.3	2521.7	2398.7	2245.4	2135.6	2071.6	2056.9	2079.8	2103.6	2111.8
27.5°	2902.1	2878.3	2800.4	2652.0	2453.7	2293.0	2194.6	2170.8	2193.0	2220.0	2228.2
30°	3207.0	3182.5	3089.8	2927.5	2707.0	2503.7	2362.7	2324.1	2355.3	2393.8	2398.7
32.5°	3512.0	3512.0	3408.7	3219.3	2979.1	2755.3	2586.5	2540.6	2592.2	2638.9	2649.6
35°	3876.8	3878.5	3778.4	3550.5	3292.3	3055.4	2869.3	2835.7	2913.6	2946.3	2971.8
37.5°	4325.2	4334.3	4205.6	3930.1	3647.3	3398.1	3176.7	3130.8	3208.7	3298.0	3380.0
40°	4809.7	4821.2	4679.4	4340.0	4057.2	3796.5	3557.1	3474.3	3603.8	3774.3	3880.1
42.5°	5272.1	5331.1	5194.2	4845.0	4540.9	4271.1	4028.5	3908.0	4070.3	4327.7	4419.5
45°	5940.2	5982.9	5744.3	5427.9	5141.8	4840.1	4518.7	4391.7	4618.7	4943.4	4962.2
47.5°	6385.4	6353.4	6232.1	6035.3	5854.2	5572.2	5088.5	4949.1	5250.8	5632.8	5527.1
50°	6622.3	6632.2	6615.8	6627.2	6633.8	6456.7	5786.9	5595.9	5955.8	6417.4	6173.9
52.5°	6843.7	6778.1	6832.2	7101.1	7425.7	7360.1	6546.9	6347.7	6711.7	7288.0	6857.6
55°	6838.7	6738.7	6915.0	7389.6	8093.9	8169.3	7400.3	7170.8	7511.0	8221.7	7582.3
57.5°	6596.9	6601.8	6873.2	7494.6	8559.5	8930.0	8390.6	8046.3	8358.6	9167.8	8243.9
60°	6264.1	6309.2	6700.2	7477.4	8932.5	9553.9	9605.6	8989.9	9189.1	10027.8	8791.5
62.5°	5727.1	5774.6	6314.1	7298.7	8875.9	10154.8	10704.1	10060.5	10057.3	10549.1	8952.2
65°	4880.3	4866.3	5432.8	6630.5	8401.3	10599.2	11795.2	10986.1	10711.5	10557.3	8629.2
67.5°	3598.9	3536.6	4022.7	5049.9	6983.0	10101.5	12437.1	11468.1	10934.5	9863.0	7642.1
70°	1867.5	1805.2	2198.7	2948.8	4592.5	7884.0	11726.4	11218.9	10441.8	8267.7	5987.0
72.5°	798.5	787.8	947.7	1293.6	2221.6	4547.4	9194.8	9710.5	8959.6	6160.0	4116.2
75°	537.0	533.7	593.5	705.0	999.3	1845.4	5754.2	6892.9	6555.1	3819.4	2315.1
77.5°	421.4	417.3	452.5	506.6	647.6	728.0	2553.7	3700.6	3425.1	1662.5	1013.3
80°	329.6	326.3	348.4	377.9	465.6	459.1	840.3	1472.4	1139.5	637.0	492.7
82.5°	259.9	259.9	277.9	278.7	330.4	313.2	438.6	648.5	568.9	371.4	301.7
85°	237.7	237.7	256.6	208.2	215.6	197.6	272.2	384.5	360.7	152.5	131.2
87.5°	119.7	116.4	215.6	184.5	117.2	104.9	132.8	186.1	200.0	84.4	65.6
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2092.9	2092.9	2092.9	2092.9	2092.9	2092.9	2092.9	2092.9	2092.9	2092.9
2.5°	2083.1	2082.3	2083.9	2084.7	2091.3	2100.3	2104.4	2110.2	2113.4	2111.8
5°	2058.5	2060.1	2066.7	2071.6	2083.1	2097.9	2106.1	2112.6	2118.4	2115.9
7.5°	2038.0	2042.1	2052.0	2056.1	2062.6	2066.7	2065.9	2068.3	2073.3	2067.5
10°	2026.5	2031.5	2038.8	2033.1	2017.5	1995.4	1974.9	1964.2	1967.5	1963.4
12.5°	2015.1	2021.6	2015.9	1988.8	1945.4	1916.7	1901.1	1902.7	1910.1	1911.8
15°	2008.5	2011.0	1986.4	1935.5	1891.3	1887.2	1895.4	1893.7	1894.6	1894.6
17.5°	2008.5	2001.9	1956.0	1905.2	1886.4	1879.0	1853.6	1821.6	1807.7	1802.7
20°	2019.2	2001.9	1946.2	1912.6	1871.6	1808.5	1741.2	1682.2	1656.0	1648.6
22.5°	2051.1	2021.6	1974.1	1915.9	1799.5	1693.7	1587.1	1516.6	1469.1	1460.9
25°	2115.9	2083.1	2029.0	1872.4	1684.7	1533.8	1412.5	1333.8	1286.3	1279.7
27.5°	2229.0	2207.7	2058.5	1776.5	1532.2	1370.7	1258.4	1197.7	1162.5	1160.0
30°	2399.5	2388.9	2043.8	1634.7	1344.5	1212.5	1158.4	1123.1	1096.9	1096.1
32.5°	2671.7	2585.6	1995.4	1461.7	1173.1	1100.2	1078.0	1056.7	1036.2	1036.2
35°	3021.8	2744.7	1903.6	1276.4	1069.0	1037.9	1010.0	976.4	949.3	947.7
37.5°	3433.3	2843.1	1738.8	1127.2	1019.8	996.1	955.1	905.1	857.5	849.3
40°	3848.9	2872.6	1506.8	1035.4	988.7	954.2	904.2	845.2	799.3	796.8
42.5°	4230.2	2816.0	1260.8	972.3	957.5	911.6	859.1	806.7	770.6	769.8
45°	4549.9	2669.3	1054.3	912.4	924.7	873.1	826.4	783.7	755.9	750.1
47.5°	4850.7	2461.8	909.2	849.3	891.9	851.8	812.4	772.2	745.2	741.1
50°	5200.0	2238.0	807.5	787.8	863.2	844.4	823.9	782.1	737.0	732.1
52.5°	5623.0	2044.6	728.0	733.7	841.1	854.2	853.4	810.0	731.3	724.7
55°	6095.2	1829.8	668.1	689.4	832.1	872.3	860.8	836.2	736.2	726.3
57.5°	6560.0	1578.9	626.3	655.8	819.0	870.6	825.5	790.3	747.7	733.7
60°	6908.4	1242.0	594.4	626.3	790.3	843.6	787.0	740.3	745.2	734.5
62.5°	6931.4	960.0	555.8	600.9	746.8	816.5	761.6	718.1	755.9	746.0
65°	6523.9	725.5	518.9	570.6	700.1	799.3	737.0	705.8	778.0	767.3
67.5°	5492.6	583.7	487.8	539.4	653.4	763.2	714.9	694.4	797.7	778.8
70°	3965.4	497.6	457.4	501.7	611.6	722.2	695.2	673.9	744.4	714.9
72.5°	2441.4	431.2	423.0	451.7	579.6	679.6	665.7	635.3	670.6	646.8
75°	1219.0	373.8	384.5	402.5	534.5	631.2	616.5	586.2	591.1	586.2
77.5°	583.7	319.7	339.4	353.3	476.3	576.3	560.7	529.6	523.9	524.7
80°	369.7	267.3	286.1	295.9	425.5	512.4	496.8	465.6	531.2	492.7
82.5°	231.2	217.2	222.2	240.2	370.5	446.0	425.5	397.6	478.8	378.7
85°	127.9	151.7	158.2	173.8	285.3	373.0	352.5	317.3	284.5	279.6
87.5°	76.2	90.2	92.6	104.1	191.8	269.7	238.6	226.3	187.7	186.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)