

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: P299173

Luminaire Tested: **GLNA-AF-04-LED-E1-T3-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299173
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-04-LED-E1-T3-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16799.5 lumens
Efficiency: N/A
Efficacy: 98.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full 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

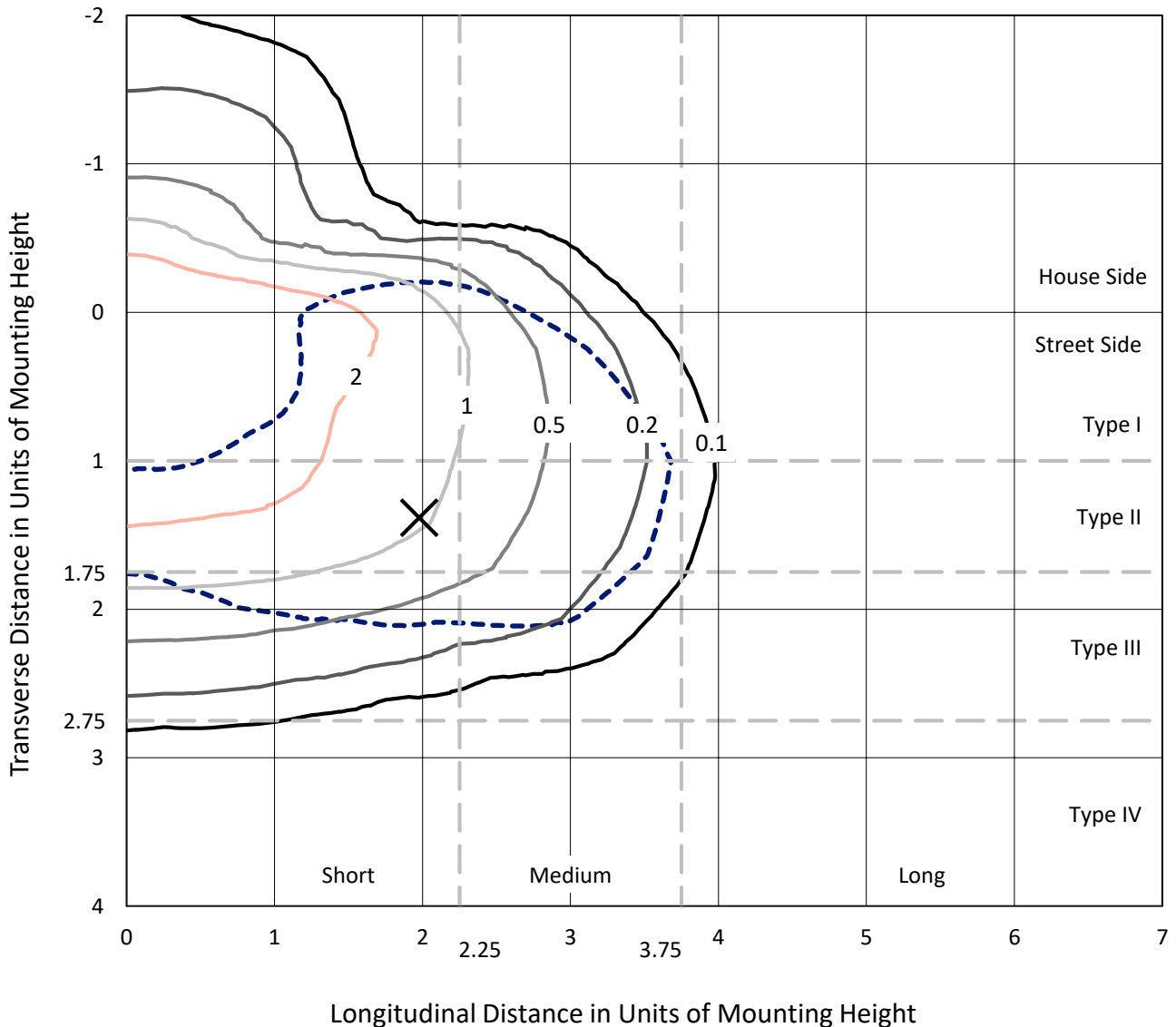


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Iso-Footcandle Lines of Horizontal Illumination

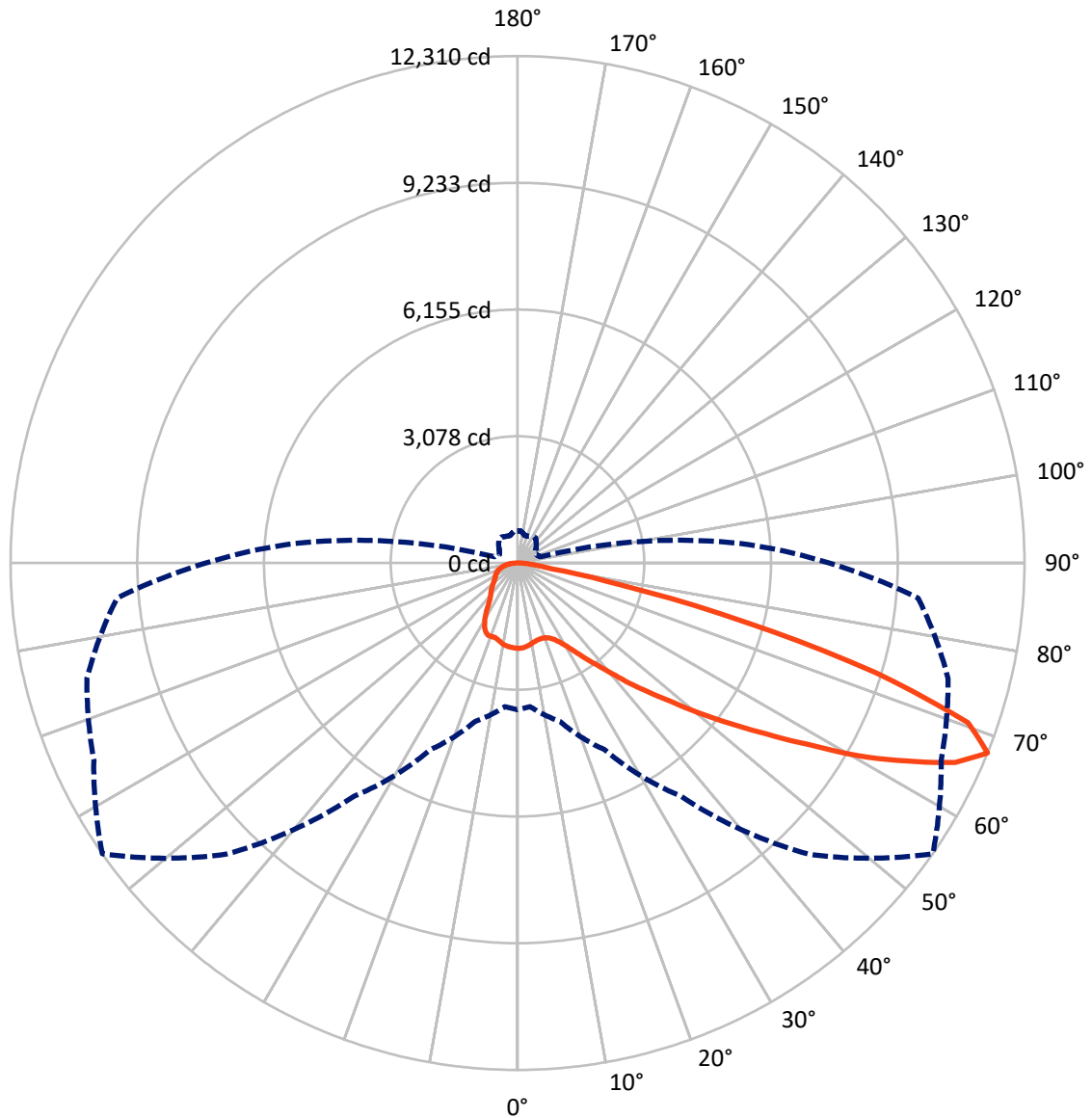
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 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	3629.0	0.0	3629.0
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	13170.4	0.0	13170.4
	% Fixture	78.4	0.0	78.4
Total	Lumens	16799.5	0.0	16799.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.4	1.2
10°-20°	547.6	3.3
20°-30°	917.3	5.5
30°-40°	1508.5	9.0
40°-50°	2539.2	15.1
50°-60°	3996.6	23.8
60°-70°	4769.5	28.4
70°-80°	2048.1	12.2
80°-90°	279.2	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°	16799.5	100.0
0°-180°	16799.5	100.0



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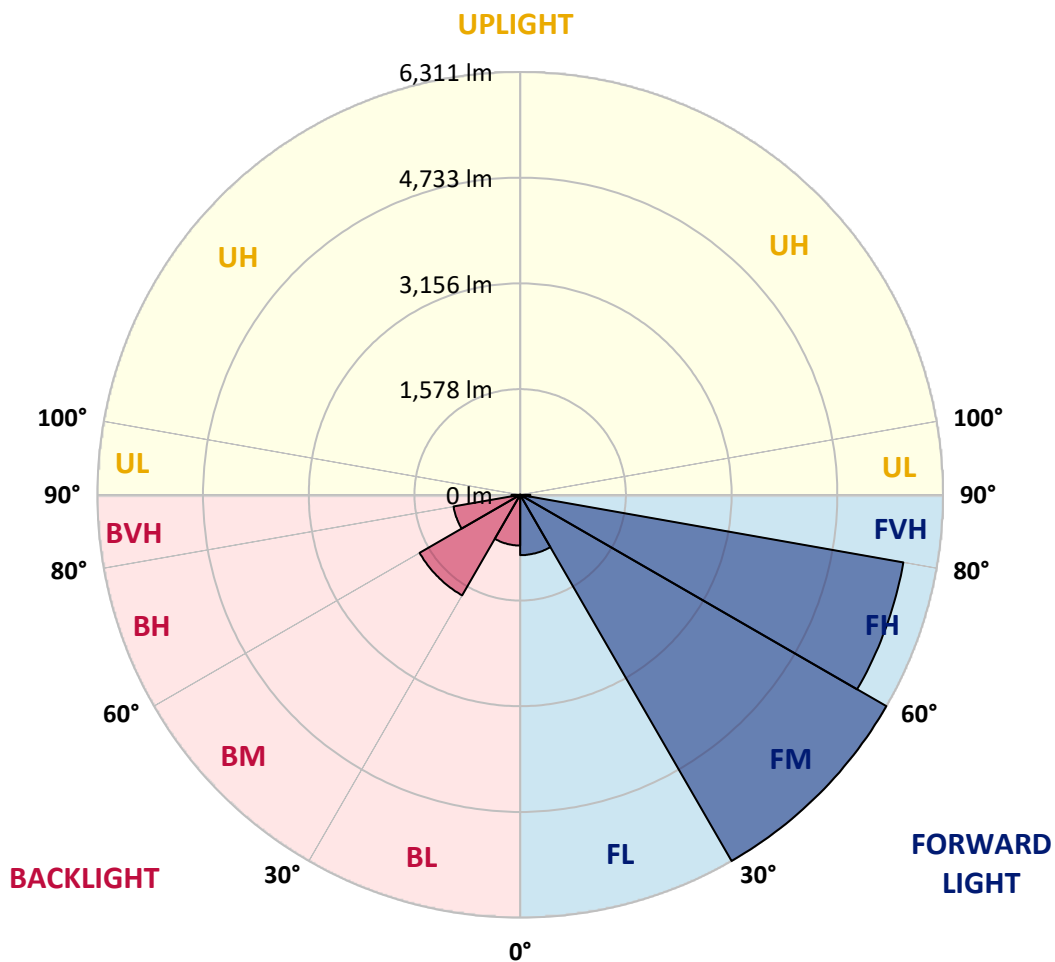
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	900.5	5.4			
FM (30°-60°)	6311.1	37.6			
FH (60°-80°)	5807.7	34.6			G3/7500
FVH (80°-90°)	151.2	0.9			G2/225
BL (0°-30°)	757.8	4.5	B2/1000		
BM (30°-60°)	1733.2	10.3	B2/2500		
BH (60°-80°)	1009.9	6.0	B3/2500		G3/2500
BVH (80°-90°)	128.1	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°	2071.6	2071.6	2071.6	2071.6	2071.6	2071.6	2071.6	2071.6	2071.6	2071.6	2071.6
2.5°	2053.7	2054.5	2056.1	2062.6	2068.3	2066.7	2067.5	2064.3	2063.4	2058.6	2063.4
5°	2027.7	2030.2	2031.0	2041.5	2048.0	2049.6	2047.2	2043.2	2038.3	2033.4	2035.9
7.5°	1968.5	1975.0	1975.8	1990.4	2001.0	2014.8	2015.6	2016.4	2013.9	2010.7	2015.6
10°	1931.2	1932.8	1932.0	1942.5	1950.7	1966.1	1975.0	1990.4	1996.9	1998.5	2001.8
12.5°	1928.7	1927.1	1924.7	1924.7	1922.3	1928.7	1945.0	1966.9	1982.3	1987.2	1991.2
15°	1954.7	1953.9	1945.8	1933.6	1918.2	1913.3	1927.1	1951.5	1971.8	1982.3	1986.4
17.5°	2013.1	2008.3	1995.3	1967.7	1934.4	1921.4	1923.1	1943.4	1966.9	1980.7	1984.7
20°	2120.2	2120.2	2092.7	2040.7	1981.5	1950.7	1936.0	1948.2	1970.9	1989.6	1995.3
22.5°	2305.2	2306.9	2260.6	2175.4	2075.6	2009.9	1973.4	1970.9	1997.7	2018.8	2025.3
25°	2567.3	2560.8	2495.9	2374.2	2222.5	2113.8	2050.5	2035.9	2058.6	2082.1	2090.2
27.5°	2872.4	2848.9	2771.8	2624.9	2428.6	2269.5	2172.2	2148.6	2170.5	2197.3	2205.4
30°	3174.3	3149.9	3058.2	2897.6	2679.3	2478.1	2338.5	2300.4	2331.2	2369.3	2374.2
32.5°	3476.1	3476.1	3373.9	3186.4	2948.7	2727.2	2560.0	2514.6	2565.7	2612.0	2622.5
35°	3837.2	3838.8	3739.8	3514.3	3258.7	3024.2	2840.0	2806.7	2883.8	2916.2	2941.4
37.5°	4281.1	4290.0	4162.6	3889.9	3610.0	3363.3	3144.3	3098.8	3175.9	3264.3	3345.5
40°	4760.6	4772.0	4631.6	4295.7	4015.7	3757.7	3520.8	3438.8	3567.0	3735.8	3840.5
42.5°	5218.2	5276.7	5141.2	4795.5	4494.5	4227.5	3987.3	3868.0	4028.7	4283.5	4374.4
45°	5879.6	5921.7	5685.6	5372.4	5089.2	4790.6	4472.5	4346.8	4571.5	4892.9	4911.5
47.5°	6320.2	6288.5	6168.4	5973.7	5794.4	5515.2	5036.5	4898.5	5197.1	5575.3	5470.6
50°	6554.7	6564.4	6548.2	6559.5	6566.0	6390.7	5727.8	5538.8	5895.0	6351.8	6110.8
52.5°	6773.7	6708.8	6762.4	7028.5	7349.8	7284.9	6480.0	6282.8	6643.1	7213.5	6787.5
55°	6768.9	6669.9	6844.3	7314.1	8011.2	8085.8	7324.7	7097.5	7434.2	8137.7	7504.8
57.5°	6529.5	6534.4	6802.9	7418.0	8472.0	8838.8	8304.9	7964.1	8273.2	9074.1	8159.6
60°	6200.1	6244.7	6631.7	7401.0	8841.2	9456.3	9507.4	8898.0	9095.2	9925.3	8701.7
62.5°	5668.6	5715.6	6249.6	7224.1	8785.2	10051.1	10594.7	9957.8	9954.5	10441.4	8860.7
65°	4830.4	4816.6	5377.3	6562.8	8315.4	10490.9	11674.7	10873.8	10602.0	10449.5	8541.0
67.5°	3562.1	3500.5	3981.6	4998.3	6911.7	9998.3	12310.1	11351.0	10822.7	9762.2	7564.1
70°	1848.4	1786.7	2176.2	2918.7	4545.6	7803.4	11606.6	11104.3	10335.1	8183.2	5925.8
72.5°	790.3	779.8	938.0	1280.4	2198.9	4500.9	9100.9	9611.3	8868.0	6097.0	4074.1
75°	531.5	528.2	587.5	697.8	989.1	1826.5	5695.4	6822.4	6488.1	3780.4	2291.5
77.5°	417.1	413.0	447.9	501.5	641.0	720.5	2527.6	3662.8	3390.1	1645.6	1002.9
80°	326.2	322.9	344.9	374.1	460.9	454.4	831.7	1457.3	1127.9	630.5	487.7
82.5°	257.2	257.2	275.1	275.9	327.0	310.0	434.1	641.8	563.1	367.6	298.6
85°	235.3	235.3	254.0	206.1	213.4	195.6	269.4	380.6	357.0	150.9	129.8
87.5°	118.5	115.2	213.4	182.6	116.0	103.9	131.5	184.2	198.0	83.6	64.9
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°	2071.6	2071.6	2071.6	2071.6	2071.6	2071.6	2071.6	2071.6	2071.6	2071.6
2.5°	2061.8	2061.0	2062.6	2063.4	2069.9	2078.9	2082.9	2088.6	2091.8	2090.2
5°	2037.5	2039.1	2045.6	2050.5	2061.8	2076.4	2084.5	2091.0	2096.7	2094.3
7.5°	2017.2	2021.2	2031.0	2035.0	2041.5	2045.6	2044.8	2047.2	2052.1	2046.4
10°	2005.8	2010.7	2018.0	2012.3	1996.9	1975.0	1954.7	1944.2	1947.4	1943.4
12.5°	1994.5	2001.0	1995.3	1968.5	1925.5	1897.1	1881.7	1883.3	1890.6	1892.2
15°	1988.0	1990.4	1966.1	1915.8	1871.9	1867.9	1876.0	1874.4	1875.2	1875.2
17.5°	1988.0	1981.5	1936.0	1885.7	1867.1	1859.8	1834.6	1803.0	1789.2	1784.3
20°	1998.5	1981.5	1926.3	1893.0	1852.5	1790.0	1723.5	1665.0	1639.1	1631.8
22.5°	2030.2	2001.0	1953.9	1896.3	1781.1	1676.4	1570.9	1501.1	1454.1	1446.0
25°	2094.3	2061.8	2008.3	1853.3	1667.5	1518.2	1398.1	1320.2	1273.1	1266.6
27.5°	2206.3	2185.2	2037.5	1758.3	1516.5	1356.7	1245.5	1185.5	1150.6	1148.2
30°	2375.0	2364.5	2022.9	1618.0	1330.7	1200.1	1146.5	1111.6	1085.7	1084.9
32.5°	2644.4	2559.2	1975.0	1446.8	1161.1	1088.9	1067.0	1045.9	1025.6	1025.6
35°	2990.9	2716.6	1884.1	1263.4	1058.1	1027.3	999.7	966.4	939.6	938.0
37.5°	3398.2	2814.0	1721.0	1115.7	1009.4	985.9	945.3	895.8	848.7	840.6
40°	3809.6	2843.2	1491.4	1024.8	978.6	944.5	895.0	836.6	791.1	788.7
42.5°	4186.9	2787.2	1248.0	962.3	947.7	902.3	850.4	798.4	762.7	761.9
45°	4503.4	2642.0	1043.5	903.1	915.3	864.2	817.9	775.7	748.1	742.4
47.5°	4801.2	2436.7	899.9	840.6	882.8	843.1	804.1	764.4	737.6	733.5
50°	5146.8	2215.2	799.2	779.8	854.4	835.8	815.5	774.1	729.5	724.6
52.5°	5565.5	2023.7	720.5	726.2	832.5	845.5	844.7	801.7	723.8	717.3
55°	6032.9	1811.1	661.3	682.4	823.6	863.4	852.0	827.6	728.7	718.9
57.5°	6493.0	1562.8	619.9	649.1	810.6	861.7	817.1	782.2	740.0	726.2
60°	6837.8	1229.3	588.3	619.9	782.2	835.0	779.0	732.7	737.6	727.0
62.5°	6860.6	950.2	550.1	594.8	739.2	808.2	753.8	710.8	748.1	738.4
65°	6457.3	718.1	513.6	564.7	693.0	791.1	729.5	698.6	770.0	759.5
67.5°	5436.5	577.7	482.8	533.9	646.7	755.4	707.6	687.3	789.5	770.8
70°	3924.8	492.5	452.8	496.6	605.3	714.9	688.1	667.0	736.8	707.6
72.5°	2416.4	426.8	418.7	447.1	573.7	672.7	658.9	628.9	663.7	640.2
75°	1206.6	370.0	380.6	398.4	529.0	624.8	610.2	580.2	585.0	580.2
77.5°	577.7	316.5	335.9	349.7	471.4	570.4	555.0	524.2	518.5	519.3
80°	366.0	264.5	283.2	292.9	421.1	507.1	491.7	460.9	525.8	487.7
82.5°	228.8	215.0	219.9	237.7	366.8	441.4	421.1	393.5	473.9	374.9
85°	126.6	150.1	156.6	172.0	282.4	369.2	348.9	314.0	281.6	276.7
87.5°	75.5	89.3	91.7	103.1	189.9	267.0	236.1	224.0	185.8	185.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)