

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: P300437

Luminaire Tested: **GLNA-AF-04-LED-E1-T4FT-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300437
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24295)
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-T4FT-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Forward Throw OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15859 lumens
Efficiency: N/A
Efficacy: 122.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

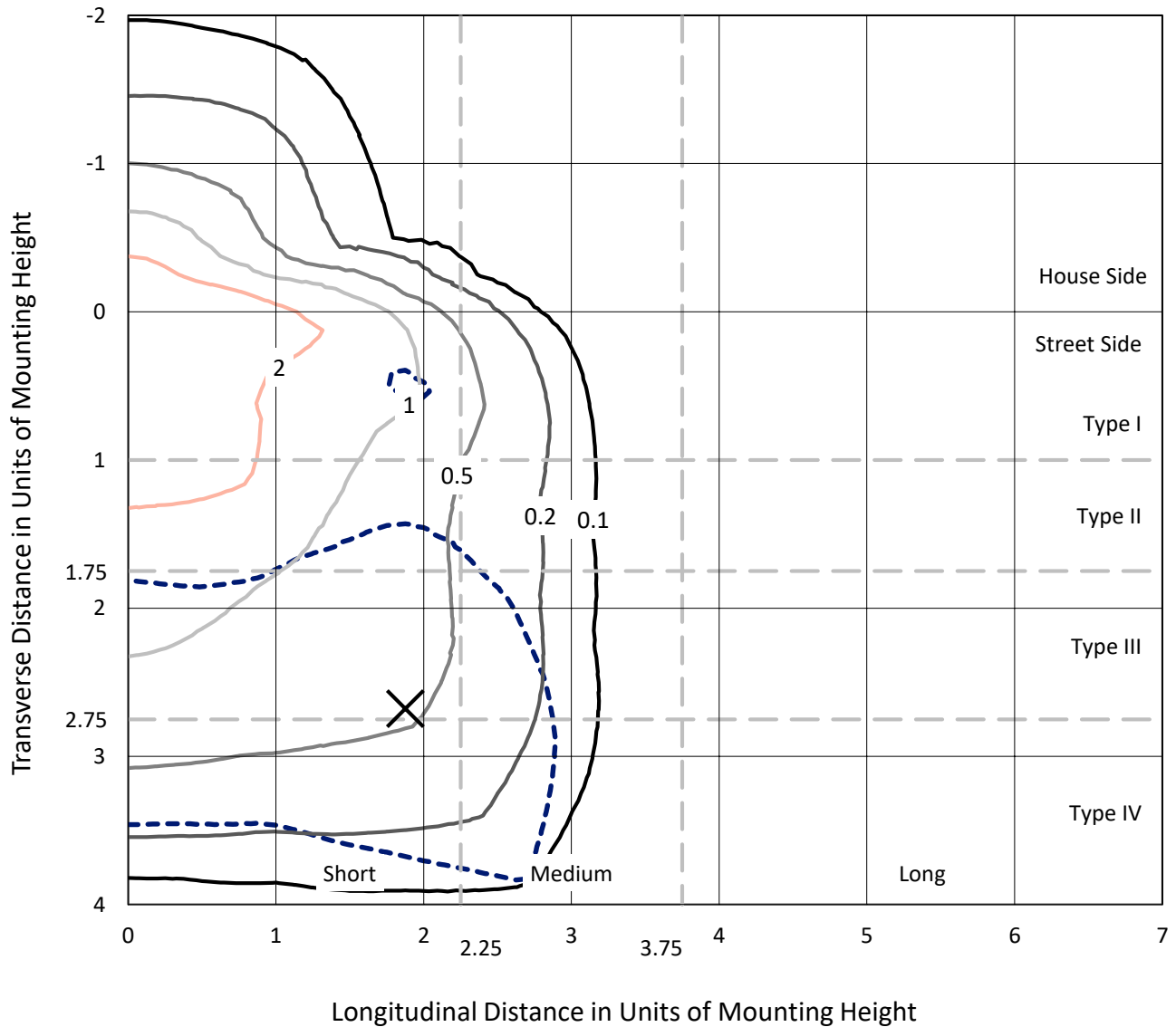
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

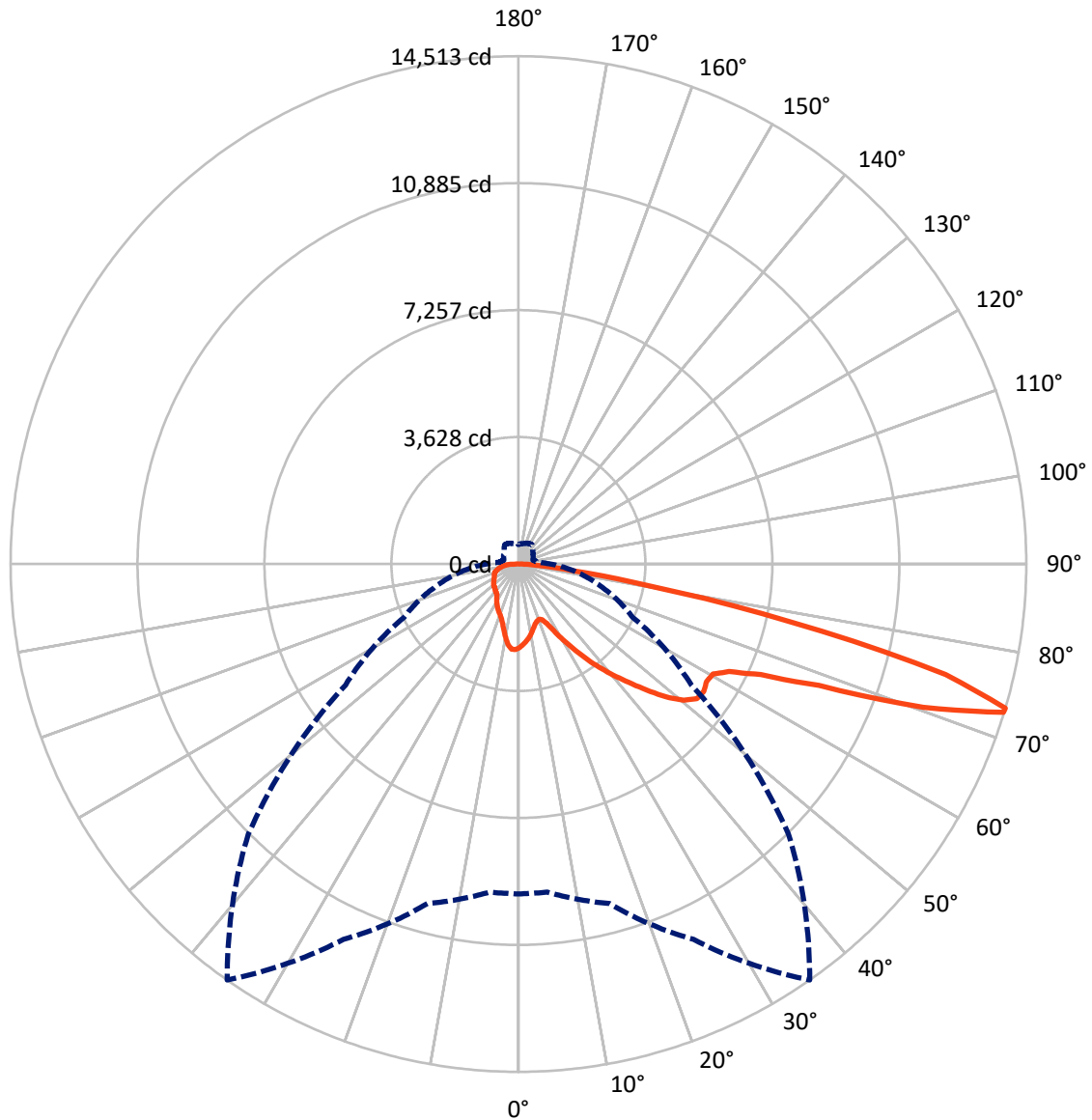
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3024.8	0.0	3024.8
	% Fixture	19.1	0.0	19.1
Street Side	Lumens	12834.3	0.0	12834.3
	% Fixture	80.9	0.0	80.9
Total	Lumens	15859.0	0.0	15859.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.7	1.4
10°-20°	540.8	3.4
20°-30°	874.3	5.5
30°-40°	1466.1	9.2
40°-50°	2260.0	14.3
50°-60°	3032.0	19.1
60°-70°	4039.2	25.5
70°-80°	3080.7	19.4
80°-90°	349.2	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°	15859.0	100.0
0°-180°	15859.0	100.0



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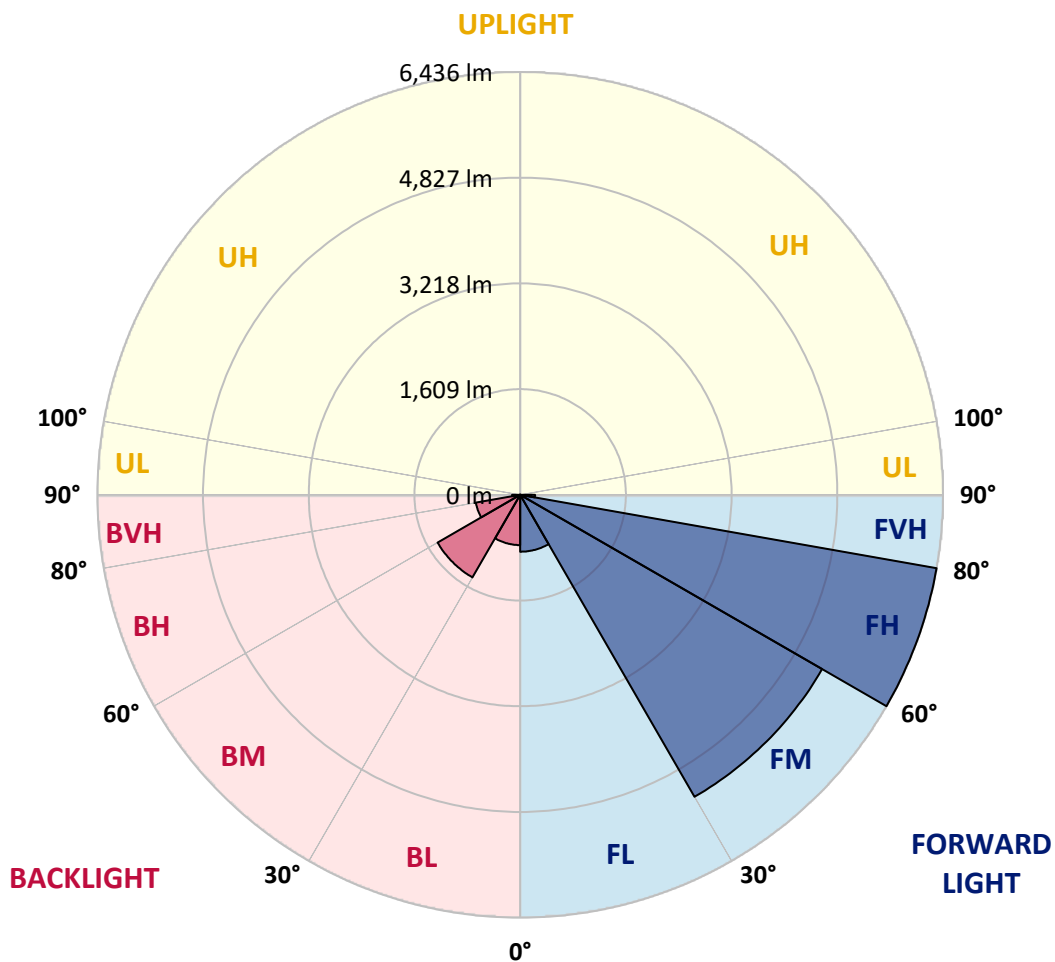
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	866.4	5.5			
FM	(30°-60°)	5306.5	33.5			
FH	(60°-80°)	6435.6	40.6			G3/7500
FVH	(80°-90°)	225.7	1.4			G3/500
BL	(0°-30°)	765.4	4.8	B2/1000		
BM	(30°-60°)	1451.5	9.2	B2/2500		
BH	(60°-80°)	684.3	4.3	B2/1000		G2/1000
BVH	(80°-90°)	123.5	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2393.6	2393.6	2393.6	2393.6	2393.6	2393.6	2393.6	2393.6	2393.6	2393.6	2393.6
2.5°	2299.2	2303.8	2298.4	2305.3	2316.7	2328.9	2337.3	2349.4	2363.2	2382.2	2386.8
5°	2191.0	2197.9	2197.9	2210.1	2232.2	2252.0	2270.2	2290.0	2319.0	2351.7	2364.7
7.5°	2072.2	2076.0	2082.9	2101.2	2133.2	2161.3	2187.2	2219.2	2258.8	2302.2	2325.1
10°	1929.1	1934.4	1945.1	1970.9	2014.4	2053.2	2090.5	2134.7	2184.9	2239.0	2268.0
12.5°	1827.8	1826.2	1830.8	1849.9	1887.9	1935.2	1989.2	2045.6	2107.3	2170.5	2205.5
15°	1793.5	1785.1	1767.6	1763.0	1783.6	1830.8	1893.3	1962.6	2036.4	2112.6	2156.0
17.5°	1814.8	1800.4	1752.4	1717.3	1714.3	1750.1	1816.3	1894.0	1979.3	2072.2	2126.3
20°	1948.9	1914.6	1796.5	1715.1	1686.9	1704.4	1762.3	1844.5	1945.1	2068.4	2137.7
22.5°	2269.5	2219.2	1968.7	1817.1	1721.9	1700.6	1744.0	1831.6	1948.9	2115.6	2204.0
25°	2736.3	2664.7	2264.2	2071.5	1875.0	1761.5	1771.4	1861.3	2002.9	2225.3	2331.9
27.5°	3104.9	3058.5	2650.3	2430.2	2153.7	1926.0	1860.5	1935.9	2113.4	2405.0	2513.9
30°	3324.3	3296.1	3063.0	2836.9	2509.4	2188.0	2031.1	2076.0	2286.2	2654.1	2743.9
32.5°	3578.6	3561.9	3447.6	3239.7	2893.2	2532.2	2301.5	2285.5	2517.8	2953.4	2994.5
35°	3842.1	3836.8	3769.8	3620.5	3305.2	2986.1	2660.2	2552.0	2769.8	3264.1	3238.2
37.5°	4087.4	4078.2	4039.4	3952.6	3736.3	3473.5	3025.7	2825.4	3041.7	3561.1	3446.1
40°	4539.0	4467.4	4334.1	4268.6	4171.9	3884.0	3315.9	3080.6	3323.5	3844.4	3625.8
42.5°	5089.6	4973.1	4724.8	4634.9	4621.2	4207.7	3513.9	3328.1	3607.6	4125.4	3802.5
45°	5522.9	5413.3	5199.2	5085.8	5136.0	4500.9	3712.7	3592.3	3900.0	4420.2	3984.5
47.5°	5985.2	5813.1	5529.8	5564.0	5673.7	4778.1	3915.2	3876.4	4220.6	4749.9	4210.7
50°	6001.9	5870.2	5746.1	5950.9	6121.5	5033.2	4168.8	4174.2	4612.8	5165.0	4511.6
52.5°	5653.9	5625.7	5823.0	6145.1	6391.1	5235.0	4457.5	4481.8	5114.7	5641.7	4842.1
55°	5532.1	5500.1	5727.8	6077.3	6427.7	5401.8	4770.5	4814.7	5721.7	6144.4	5164.2
57.5°	5829.1	5758.2	5773.5	6045.4	6338.6	5584.6	5111.7	5200.8	6381.2	6583.8	5371.4
60°	6659.2	6507.6	6219.8	6212.9	6386.5	5858.8	5506.2	5615.1	7066.6	6794.0	5290.6
62.5°	7823.6	7672.1	7132.9	6781.8	6755.9	6311.1	5990.5	6019.5	7462.6	6509.2	4797.9
65°	9084.0	8948.5	8346.1	7850.3	7611.1	7060.5	6553.3	6200.0	7333.2	5725.5	3935.8
67.5°	10614.0	10468.6	9950.7	9493.0	9263.0	8269.9	6948.6	6027.1	6511.4	4435.4	2829.2
70°	11684.0	11535.5	11331.4	11702.3	12265.1	10014.7	6999.6	5324.1	4863.4	2948.0	1702.9
72.5°	10288.1	10218.8	10591.2	12153.2	14497.3	11073.3	6327.1	3876.4	2824.7	1565.0	985.5
73°	9426.0	9410.7	10045.9	11837.1	14513.3	10910.3	6032.4	3603.0	2422.6	1384.5	900.9
75°	4256.4	4379.0	5771.2	9041.4	12609.3	8990.4	4245.8	2066.9	1368.5	956.5	680.1
77.5°	1022.8	1065.4	1805.7	4293.7	7963.0	5357.7	1923.7	1022.0	875.0	675.5	496.5
80°	435.6	450.1	695.3	1586.4	3749.2	2157.5	886.5	684.7	605.4	471.4	348.0
82.5°	242.2	257.4	394.5	719.7	1513.2	735.7	540.7	476.7	398.3	284.1	226.2
85°	137.1	145.5	230.8	402.1	641.2	295.5	323.7	316.8	224.7	146.2	111.2
87.5°	64.7	70.1	111.2	186.6	251.3	115.8	164.5	181.3	140.9	89.1	57.9
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°	2393.6	2393.6	2393.6	2393.6	2393.6	2393.6	2393.6	2393.6	2393.6	2393.6
2.5°	2392.1	2405.8	2421.8	2430.2	2437.8	2446.9	2456.1	2456.1	2457.6	2458.4
5°	2375.3	2403.5	2428.7	2439.3	2441.6	2441.6	2439.3	2427.1	2416.5	2421.0
7.5°	2340.3	2381.4	2402.8	2399.0	2370.0	2336.5	2308.3	2274.1	2256.5	2253.5
10°	2290.0	2337.3	2341.1	2303.0	2231.4	2159.8	2100.4	2042.5	2015.1	2008.3
12.5°	2234.5	2277.9	2253.5	2175.0	2060.1	1955.7	1880.3	1821.7	1795.8	1788.9
15°	2189.5	2219.2	2157.5	2034.2	1889.5	1779.0	1716.6	1673.2	1654.9	1649.6
17.5°	2165.9	2172.0	2059.3	1892.5	1738.7	1646.5	1607.7	1587.1	1580.3	1576.5
20°	2177.3	2134.7	1965.6	1760.8	1615.3	1550.6	1541.4	1536.1	1534.6	1532.3
22.5°	2234.5	2123.3	1879.6	1635.9	1507.2	1479.0	1486.6	1485.8	1484.3	1482.8
25°	2336.5	2133.2	1795.8	1517.1	1416.5	1410.4	1424.1	1424.1	1418.0	1418.0
27.5°	2471.3	2153.7	1702.1	1404.3	1334.3	1335.0	1345.7	1342.7	1335.8	1331.2
30°	2635.8	2166.7	1592.4	1303.0	1257.4	1254.3	1257.4	1244.4	1223.8	1222.3
32.5°	2804.1	2150.7	1465.3	1213.2	1175.9	1169.0	1166.7	1148.5	1124.8	1118.0
35°	2956.4	2092.0	1335.8	1141.6	1098.2	1083.0	1093.6	1087.5	1066.2	1060.9
37.5°	3067.6	1983.1	1219.3	1078.4	1042.6	1038.8	1045.6	1047.9	1022.8	1017.5
40°	3142.2	1835.4	1119.5	1025.1	1031.9	1017.5	994.6	978.6	971.0	968.7
42.5°	3202.4	1681.6	1035.7	999.9	1034.2	992.3	942.8	916.9	930.6	936.7
45°	3271.7	1531.5	965.7	968.7	1022.8	963.4	907.0	881.9	887.2	888.8
47.5°	3366.9	1348.7	890.3	918.5	984.7	943.6	884.9	849.2	824.0	812.6
50°	3498.7	1132.5	811.8	862.1	947.4	929.1	850.7	812.6	766.1	755.5
52.5°	3590.0	930.6	747.1	814.9	913.9	900.2	823.3	773.8	725.0	715.9
55°	3540.5	773.0	690.7	762.3	869.7	864.4	800.4	734.2	696.1	688.5
57.5°	3293.0	673.2	647.3	712.8	815.6	833.9	769.9	700.6	673.2	667.9
60°	2820.9	610.8	619.9	679.3	771.5	803.5	739.5	682.4	664.1	660.3
62.5°	2188.8	568.9	599.4	655.0	737.2	782.1	722.7	680.1	673.2	668.7
65°	1568.1	535.4	577.3	630.6	706.0	762.3	716.6	677.0	678.6	674.8
67.5°	1065.4	505.7	550.6	603.2	675.5	744.8	708.3	666.4	685.4	680.8
70°	745.6	476.7	519.4	568.1	637.4	720.4	693.0	650.4	648.9	630.6
72.5°	581.8	438.7	476.7	519.4	588.7	686.2	662.6	614.6	589.5	570.4
73°	555.2	429.5	466.1	508.7	578.0	677.8	654.2	604.7	576.5	559.0
75°	459.2	389.9	423.4	461.5	532.3	638.2	613.1	559.8	524.0	513.3
77.5°	361.0	333.6	365.6	399.8	469.1	580.3	552.1	501.1	481.3	472.2
80°	267.3	276.5	304.6	335.1	406.7	518.6	493.5	442.5	530.8	508.7
82.5°	188.1	209.4	235.3	262.7	341.2	458.5	428.0	375.5	388.4	322.9
85°	111.2	137.1	161.5	185.1	246.0	380.0	353.4	299.3	245.2	233.8
87.5°	64.7	76.2	83.0	107.4	169.1	286.4	249.0	221.6	127.2	86.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)