

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: P302891

Luminaire Tested: **GLNA-AF-02-LED-E1-T4W-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P302891  
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-02-LED-E1-T4W-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

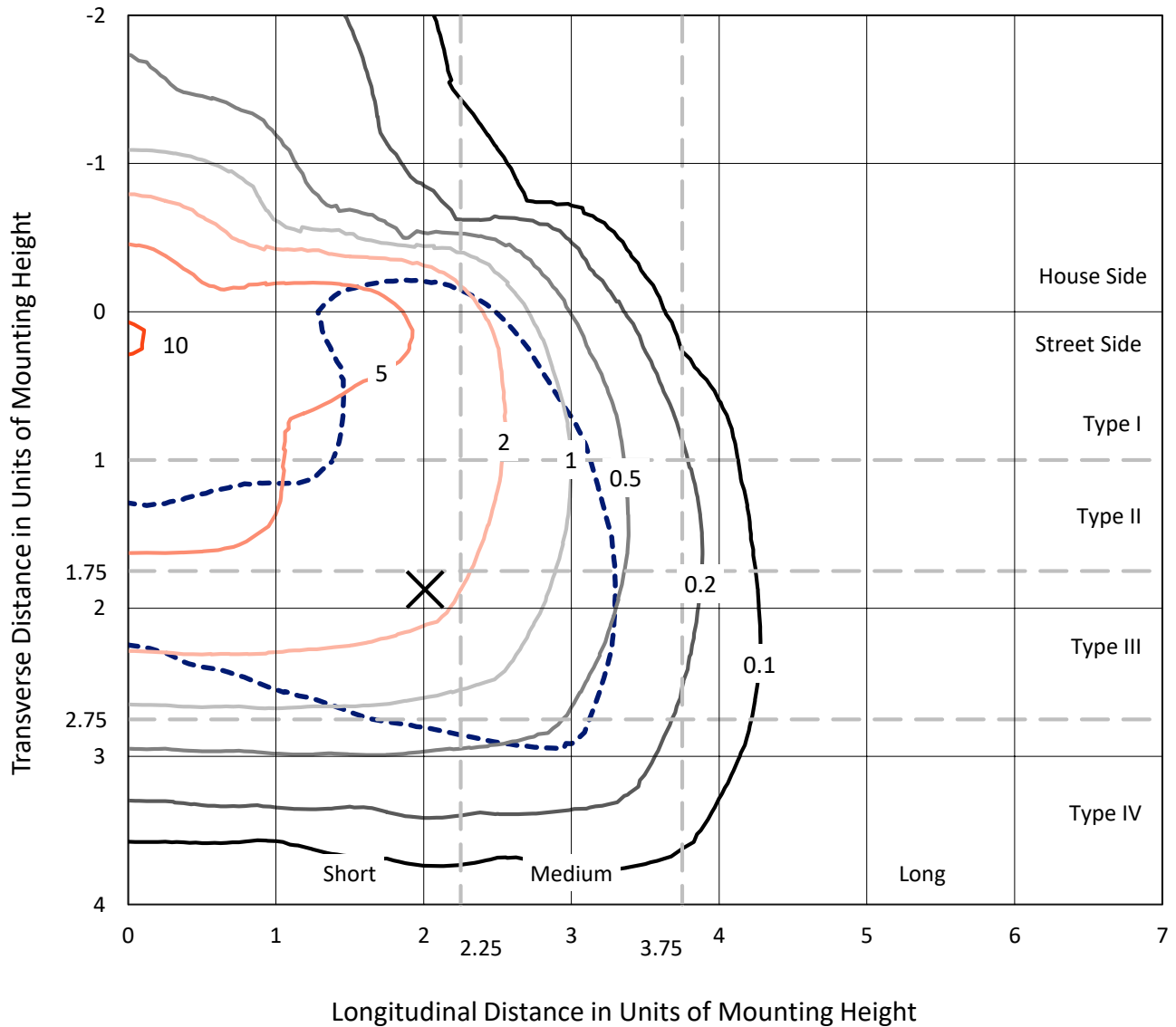
Lumens per Lamp: N/A  
Luminaire Lumens: 7939.6 lumens  
Efficiency: N/A  
Efficacy: 120.3 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 66  
Input Voltage (V): NR  
Input Current (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

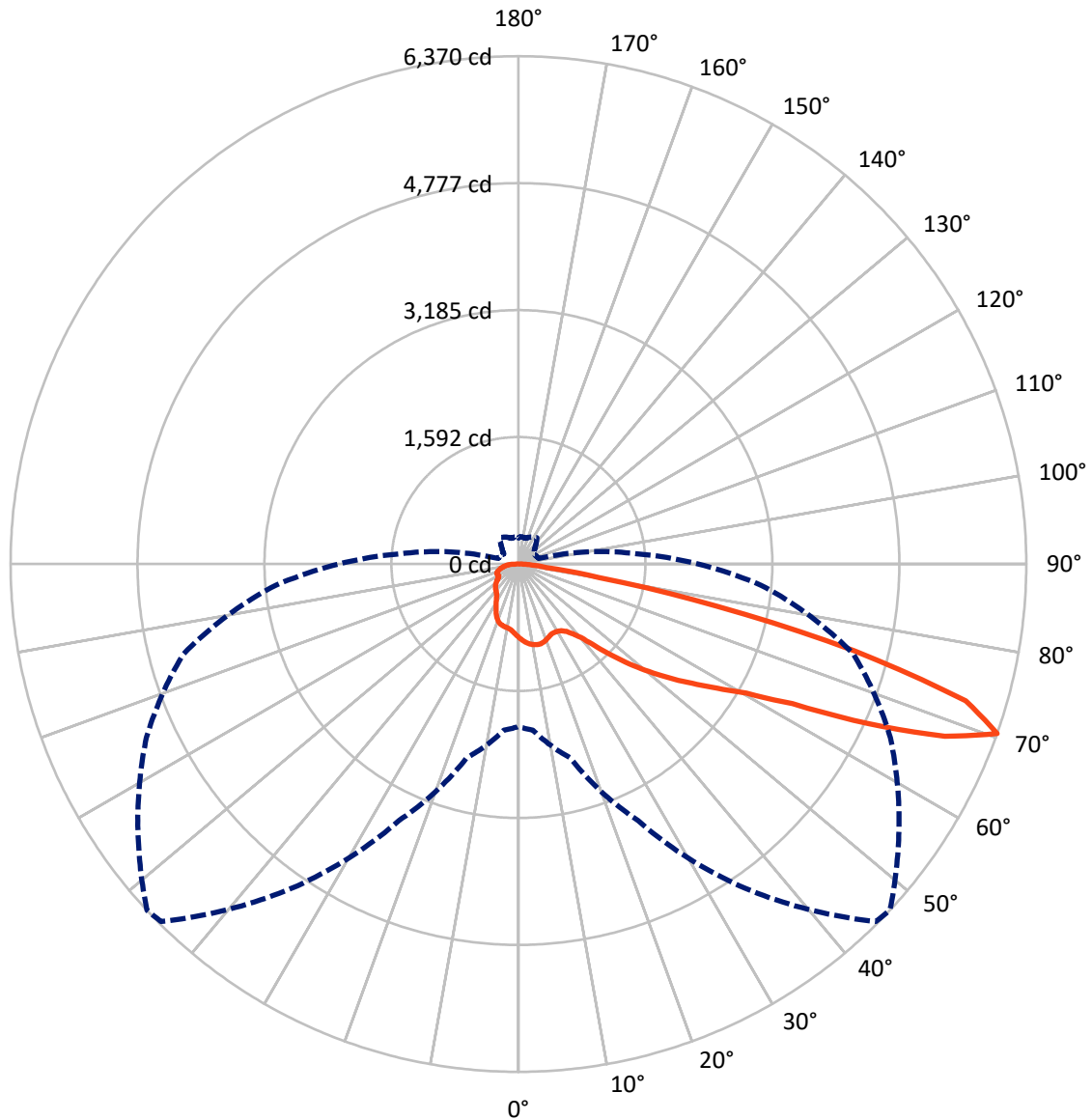
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.6 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	1656.4	0.0	1656.4
	% Fixture	20.9	0.0	20.9
<b>Street Side</b>	Lumens	6283.2	0.0	6283.2
	% Fixture	79.1	0.0	79.1
<b>Total</b>	Lumens	7939.6	0.0	7939.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.3	1.1
10°-20°	259.0	3.3
20°-30°	382.4	4.8
30°-40°	555.8	7.0
40°-50°	1000.3	12.6
50°-60°	1732.9	21.8
60°-70°	2473.4	31.2
70°-80°	1269.7	16.0
80°-90°	177.8	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°	7939.6	100.0
0°-180°	7939.6	100.0



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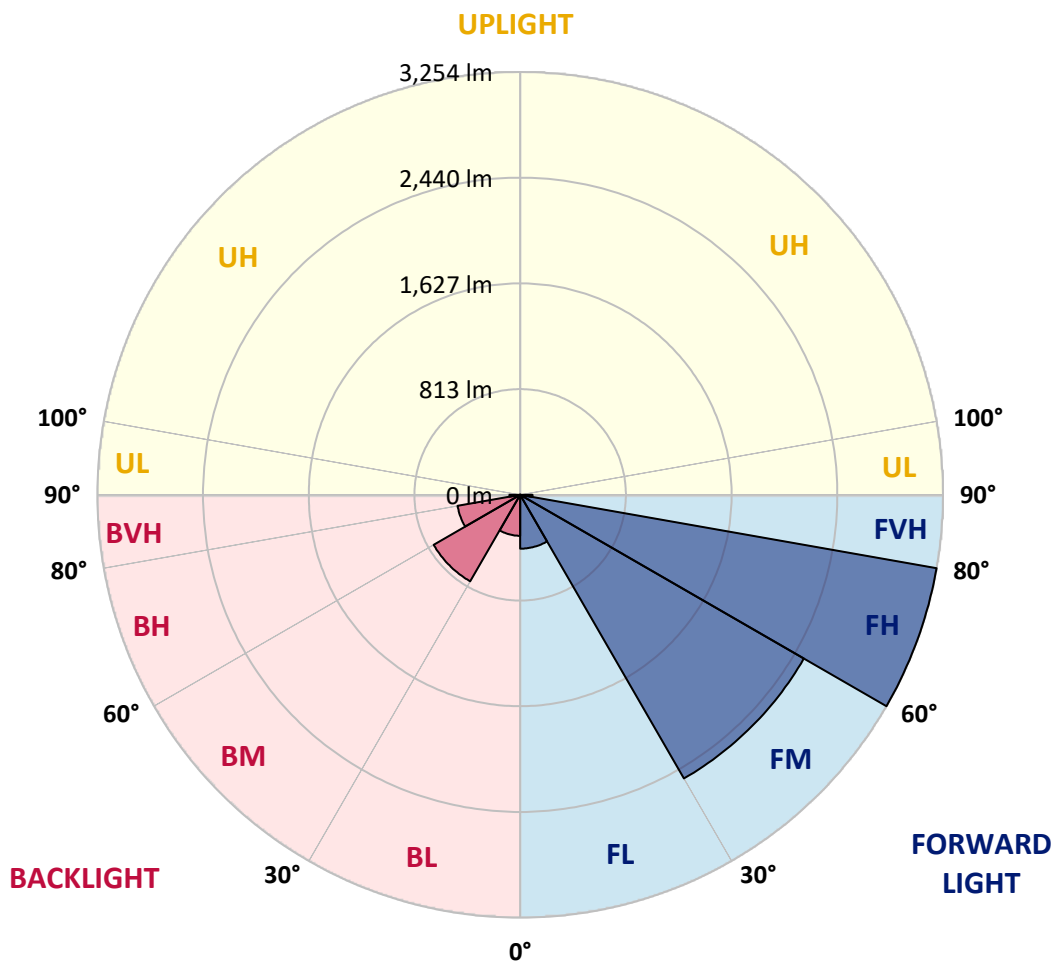
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	414.3	5.2			
FM (30°-60°)	2520.2	31.7			
FH (60°-80°)	3253.8	41.0			G2/5000
FVH (80°-90°)	94.9	1.2			G1/100
BL (0°-30°)	315.4	4.0	B1/500		
BM (30°-60°)	768.8	9.7	B1/1000		
BH (60°-80°)	489.2	6.2	B1/500		G1/500
BVH (80°-90°)	82.9	1.0			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	921.2	921.2	921.2	921.2	921.2	921.2	921.2	921.2	921.2	921.2	921.2
2.5°	975.4	973.4	972.7	971.1	969.2	959.4	957.5	950.6	941.0	930.8	920.4
5°	1039.5	1039.1	1034.7	1027.1	1014.7	993.4	988.4	971.5	948.7	926.6	904.7
7.5°	1095.8	1092.3	1084.3	1068.7	1047.2	1018.2	1011.3	987.7	956.4	926.2	896.5
10°	1137.1	1135.2	1117.5	1096.2	1068.0	1035.9	1027.8	1001.5	967.1	928.9	891.8
12.5°	1160.7	1156.9	1136.3	1110.9	1077.3	1046.0	1037.8	1011.3	972.7	928.9	885.3
15°	1159.2	1156.5	1136.0	1108.1	1074.3	1046.8	1039.5	1012.8	971.5	925.1	876.8
17.5°	1128.3	1129.4	1112.1	1084.7	1056.8	1035.9	1029.4	1004.7	963.7	917.4	866.8
20°	1074.3	1079.6	1068.0	1043.7	1028.2	1014.0	1009.7	988.8	951.7	906.2	855.9
22.5°	1020.1	1025.1	1020.5	1000.0	997.7	989.2	986.9	971.9	941.4	899.3	849.4
25°	980.4	985.0	984.2	966.4	973.4	973.0	971.1	963.7	939.0	899.3	850.5
27.5°	969.6	971.1	969.6	953.3	962.9	970.7	969.2	967.9	946.0	910.4	865.3
30°	1006.7	1004.3	992.3	959.4	968.4	979.2	977.7	978.4	966.8	939.8	898.1
32.5°	1154.6	1144.0	1106.2	1014.0	990.4	996.1	996.9	1009.7	1011.7	985.0	949.1
35°	1375.9	1364.3	1315.2	1160.0	1058.7	1038.7	1038.7	1058.0	1069.5	1049.9	1028.2
37.5°	1610.4	1597.5	1571.4	1362.4	1202.4	1112.5	1110.6	1124.0	1140.6	1145.3	1150.7
40°	1876.8	1863.3	1870.7	1589.5	1402.9	1240.3	1212.8	1203.2	1248.0	1277.7	1321.1
42.5°	2168.5	2162.2	2164.9	1842.4	1631.1	1431.5	1392.5	1342.6	1396.8	1449.6	1540.4
45°	2438.4	2443.8	2441.1	2113.2	1885.4	1664.8	1623.4	1526.9	1579.8	1670.5	1818.6
47.5°	2674.9	2652.4	2687.2	2409.1	2170.1	1925.9	1874.9	1745.6	1799.2	1911.2	2161.5
50°	2961.8	2958.8	2907.8	2803.9	2514.1	2188.2	2121.3	1971.5	2054.9	2210.6	2593.8
52.5°	3263.6	3207.5	3160.8	3110.9	2879.2	2457.0	2375.1	2196.6	2355.4	2551.2	3120.7
55°	3325.3	3300.3	3358.1	3442.0	3231.1	2736.3	2640.9	2479.0	2693.9	2940.7	3728.2
57.5°	3457.4	3457.0	3576.8	3726.3	3593.4	3032.5	2936.3	2820.1	3074.2	3386.7	4373.2
60°	3546.7	3571.7	3794.3	4084.3	3949.1	3374.8	3286.3	3213.7	3506.9	3885.4	4974.3
62.5°	3593.4	3627.4	3931.0	4229.6	4452.0	3944.5	3856.1	3751.4	4079.3	4432.4	5325.8
65°	3399.2	3465.9	3909.7	4355.2	4892.4	4868.0	4828.3	4644.4	4795.0	4864.6	5198.8
67.5°	2861.4	2929.8	3446.6	4238.0	5206.8	5758.8	5767.3	5453.3	5235.4	4901.6	4370.9
70°	2038.7	2092.3	2520.0	3553.2	4967.3	6340.9	6369.9	5825.9	5147.7	4346.9	3053.8
72.5°	967.9	1000.8	1405.6	2312.6	3941.8	5809.8	5865.8	5350.1	4377.1	3218.3	1665.9
75°	355.7	365.7	475.0	983.8	2286.3	4284.5	4350.5	3835.2	2901.6	1602.3	634.6
77.5°	213.2	219.8	266.6	415.3	899.3	2449.0	2546.6	2085.8	1268.1	596.4	312.1
80°	149.1	153.7	191.1	258.4	424.9	933.3	1020.1	851.3	505.2	377.4	227.1
82.5°	100.8	103.1	134.4	174.6	282.4	333.3	359.6	378.6	340.7	280.8	144.1
85°	66.1	68.4	91.2	115.1	179.6	172.3	176.1	222.8	248.7	190.8	79.9
87.5°	37.8	39.4	54.9	61.4	88.1	73.0	73.8	117.4	159.2	128.7	48.6
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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	921.2	921.2	921.2	921.2	921.2	921.2	921.2	921.2	921.2	921.2	921.2
2.5°	917.8	912.7	901.6	894.5	888.0	886.5	883.8	883.4	883.0	883.0	881.8
5°	897.2	888.8	871.4	861.7	853.6	852.8	852.5	854.4	855.1	855.9	854.8
7.5°	884.1	872.6	850.9	837.1	827.4	825.0	829.0	837.8	843.6	845.9	844.8
10°	876.1	861.7	836.7	821.5	813.5	812.3	817.3	827.8	839.8	844.4	844.0
12.5°	866.8	850.5	823.8	808.1	803.4	805.8	812.3	821.9	834.4	841.7	842.1
15°	857.5	838.6	811.1	797.3	795.4	798.4	804.6	811.9	821.5	829.0	829.7
17.5°	846.3	826.5	799.2	784.8	783.3	784.8	785.2	789.1	795.4	802.3	804.2
20°	834.4	814.2	785.6	771.4	764.5	758.3	751.2	752.0	753.9	761.0	762.5
22.5°	825.8	805.8	775.2	755.5	737.0	718.4	704.5	702.6	703.4	709.2	711.1
25°	826.5	805.4	772.5	738.5	698.0	668.2	649.6	646.6	646.2	650.4	653.2
27.5°	841.7	820.4	782.5	721.1	655.5	611.4	591.8	589.5	586.4	587.5	590.6
30°	875.3	855.5	806.9	703.4	609.5	555.9	535.3	533.0	528.8	526.9	529.2
32.5°	930.1	913.9	842.4	686.3	563.6	508.3	487.5	482.5	479.8	477.5	479.4
35°	1021.3	1014.4	889.9	667.9	523.0	471.6	452.7	445.0	441.2	445.4	448.5
37.5°	1164.2	1168.0	952.1	638.9	491.7	447.3	431.4	422.6	416.8	420.3	423.7
40°	1366.6	1369.3	1020.9	597.9	464.6	433.0	416.0	407.9	399.7	393.6	393.2
42.5°	1632.3	1605.0	1088.5	553.6	433.3	424.1	405.3	395.1	382.8	365.7	362.3
45°	1947.5	1851.4	1139.8	502.5	398.2	413.3	393.2	379.3	360.0	341.5	339.6
47.5°	2310.7	2115.9	1165.0	449.6	365.4	397.4	378.6	356.5	332.1	322.9	321.7
50°	2754.0	2430.0	1176.9	398.2	336.9	376.6	357.3	331.4	311.0	309.0	307.9
52.5°	3259.0	2807.8	1180.9	356.1	313.3	349.6	340.0	314.8	298.5	300.2	300.2
55°	3787.4	3197.9	1128.3	325.6	291.6	321.7	328.3	308.3	294.7	301.0	303.3
57.5°	4272.4	3543.6	962.9	302.1	271.2	300.6	324.0	314.4	305.2	330.2	331.7
60°	4644.8	3747.9	719.2	280.8	256.1	293.1	335.3	338.0	340.3	400.1	408.3
62.5°	4722.8	3680.0	494.4	264.3	249.1	299.4	355.7	356.1	353.4	395.1	400.1
65°	4364.8	3250.0	359.6	254.9	243.4	310.6	373.2	365.0	347.3	379.0	369.6
67.5°	3466.3	2448.6	299.4	248.0	234.9	309.8	391.7	373.2	343.8	371.3	356.1
70°	2250.0	1480.5	266.6	242.2	224.8	295.1	402.4	372.4	333.7	345.3	327.5
72.5°	1097.7	662.1	244.5	233.7	214.4	274.7	402.0	365.4	323.3	322.5	312.9
75°	429.5	303.3	224.4	220.9	196.7	251.4	391.3	355.3	311.0	298.5	295.1
77.5°	251.4	216.3	199.0	202.0	175.4	228.2	375.5	338.0	293.9	279.3	275.4
80°	183.1	161.9	169.6	174.6	149.8	205.1	354.2	316.7	275.0	282.4	277.0
82.5°	117.4	104.3	137.5	142.5	124.8	181.5	331.0	294.3	248.4	225.5	220.1
85°	59.9	66.1	102.4	108.5	96.2	149.1	302.9	264.7	218.2	187.7	190.8
87.5°	33.6	45.2	65.3	73.0	68.0	114.7	245.7	218.2	178.1	144.8	127.5
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)