

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: P298990

Luminaire Tested: **GLNA-AF-03-LED-E1-T2-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P298990  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-03-LED-E1-T2-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

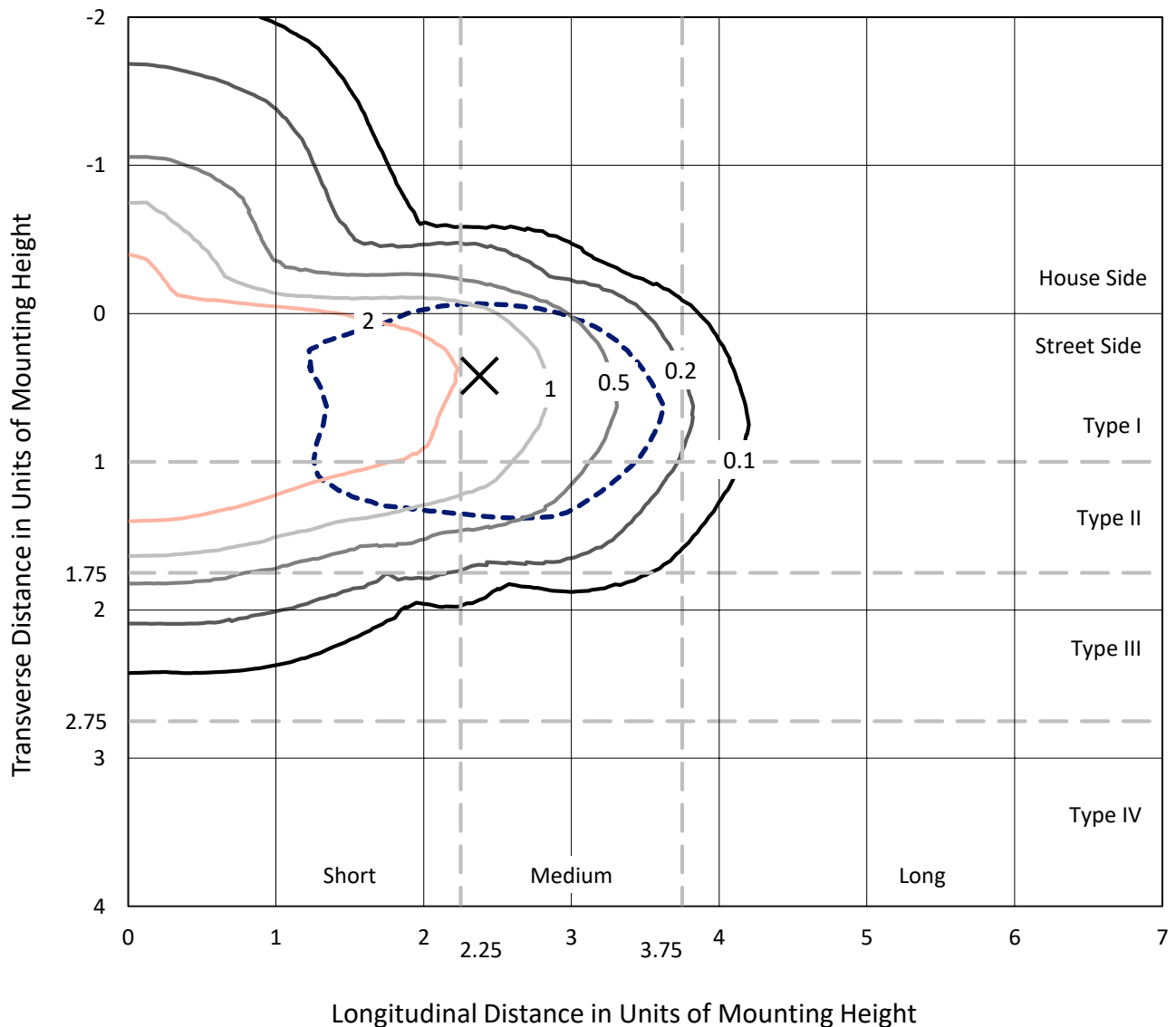
Lumens per Lamp: N/A  
Luminaire Lumens: 11707.3 lumens  
Efficiency: N/A  
Efficacy: 122.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (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

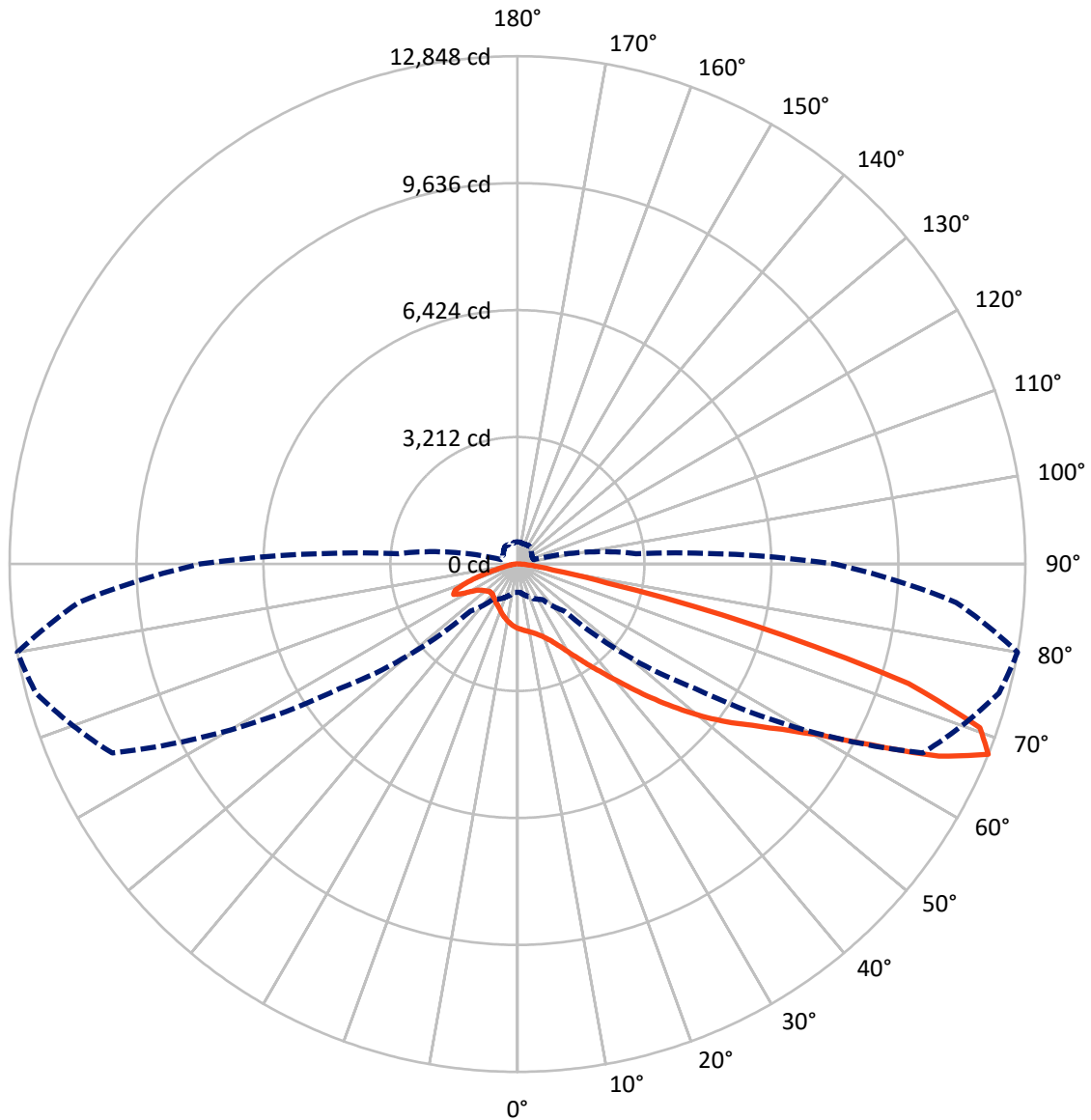
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.9 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2156.1	0.0	2156.1
	% Fixture	18.4	0.0	18.4
<b>Street Side</b>	Lumens	9551.3	0.0	9551.3
	% Fixture	81.6	0.0	81.6
<b>Total</b>	Lumens	11707.3	0.0	11707.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.0	1.3
10°-20°	432.2	3.7
20°-30°	715.4	6.1
30°-40°	1170.2	10.0
40°-50°	1889.4	16.1
50°-60°	2727.8	23.3
60°-70°	3010.3	25.7
70°-80°	1387.5	11.9
80°-90°	224.4	1.9
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°	11707.3	100.0
0°-180°	11707.3	100.0



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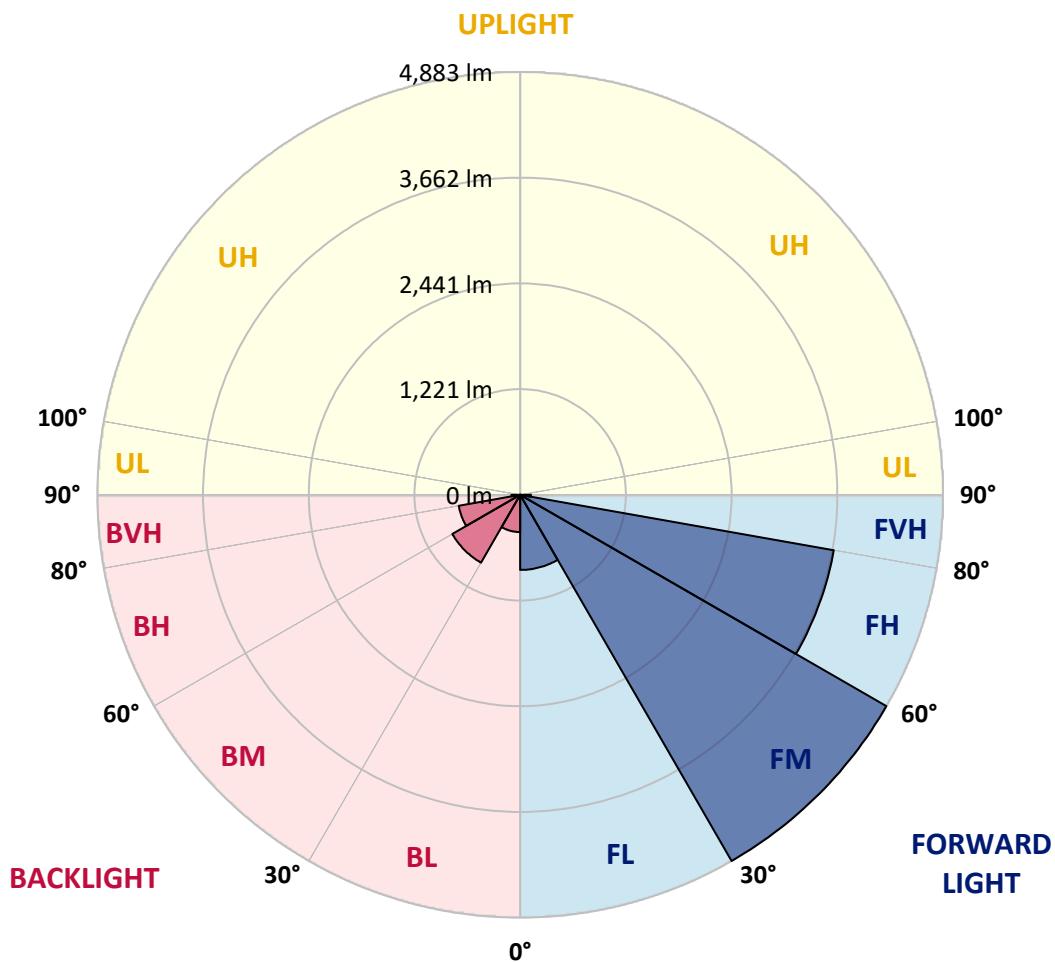
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	867.5	7.4			
FM (30°-60°)	4882.8	41.7			
FH (60°-80°)	3677.6	31.4			G2/5000
FVH (80°-90°)	123.4	1.1			G2/225
BL (0°-30°)	430.2	3.7	B1/500		
BM (30°-60°)	904.6	7.7	B1/1000		
BH (60°-80°)	720.2	6.2	B2/1000		G2/1000
BVH (80°-90°)	101.0	0.9			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	1626.5	1626.5	1626.5	1626.5	1626.5	1626.5	1626.5	1626.5	1626.5	1626.5	1626.5
2.5°	1779.2	1768.9	1770.6	1767.7	1759.1	1744.1	1727.9	1698.5	1668.0	1651.9	1639.2
5°	1927.9	1925.0	1921.0	1911.8	1889.9	1858.8	1820.1	1768.3	1712.4	1683.0	1654.7
7.5°	2039.2	2037.4	2032.2	2026.5	2005.2	1967.7	1909.5	1835.7	1754.4	1714.1	1670.3
10°	2048.4	2051.3	2055.3	2070.9	2073.7	2053.6	1994.2	1904.9	1798.2	1746.4	1690.5
12.5°	1970.0	1976.3	1991.9	2031.7	2073.7	2098.5	2068.0	1977.5	1849.5	1786.7	1715.8
15°	1866.3	1869.7	1888.7	1943.5	2019.0	2095.6	2124.5	2057.6	1915.8	1838.6	1753.9
17.5°	1821.9	1823.6	1836.9	1873.2	1943.5	2053.0	2156.2	2144.6	1997.1	1903.1	1800.6
20°	1799.4	1803.4	1822.5	1858.2	1902.6	1998.2	2160.8	2238.6	2093.9	1983.8	1859.3
22.5°	1863.4	1861.6	1868.6	1886.4	1923.9	1981.5	2157.3	2335.4	2217.3	2087.6	1936.0
25°	2012.7	2019.0	2006.9	1986.7	1998.8	2039.2	2175.8	2440.3	2371.7	2220.7	2036.3
27.5°	2225.3	2219.0	2201.1	2153.9	2129.1	2146.4	2236.9	2553.3	2563.7	2395.9	2168.8
30°	2437.4	2432.2	2415.0	2357.3	2306.6	2292.2	2355.6	2683.0	2792.5	2606.3	2331.4
32.5°	2657.6	2651.8	2635.7	2578.1	2517.0	2483.5	2524.5	2832.8	3062.2	2857.6	2522.7
35°	2929.1	2918.1	2884.1	2804.0	2744.1	2718.1	2737.1	3021.3	3373.4	3155.0	2755.0
37.5°	3184.4	3201.1	3166.5	3055.9	2978.1	2968.8	2990.2	3251.3	3708.9	3487.6	3021.9
40°	3440.9	3443.8	3412.6	3322.1	3242.0	3227.0	3280.6	3530.2	4104.8	3885.3	3346.4
42.5°	3706.0	3711.8	3659.3	3575.7	3517.0	3519.8	3580.9	3857.0	4559.0	4353.8	3719.8
45°	4020.1	4028.8	3971.1	3861.6	3808.0	3915.8	3890.4	4223.6	5057.0	4886.4	4148.6
47.5°	4348.6	4361.9	4318.1	4215.5	4148.6	4296.8	4199.9	4629.9	5593.0	5457.6	4619.5
50°	4527.9	4546.9	4589.6	4582.1	4567.7	4542.9	4545.2	5065.6	6145.7	6052.4	5103.7
52.5°	4431.6	4431.1	4586.7	4775.7	4977.5	4992.4	4965.9	5525.0	6662.2	6633.9	5559.6
55°	3991.3	4021.3	4257.0	4623.0	5174.0	5518.1	5596.5	6051.2	7169.4	7202.2	6022.4
57.5°	3258.2	3283.0	3601.1	4111.2	4908.9	5830.5	6493.3	6816.0	7736.5	7889.8	6638.5
60°	2209.8	2239.7	2576.9	3189.6	4195.3	5656.4	7346.9	8180.9	8415.4	8764.1	7503.1
62.5°	1298.5	1325.6	1600.6	2012.1	2953.9	4847.8	7721.5	10122.6	9493.8	10083.4	8821.8
65°	893.9	912.4	1046.1	1252.4	1697.4	3265.1	7257.0	11463.2	11153.2	11718.0	10350.9
67.5°	719.3	717.0	823.0	963.7	1092.8	1683.6	5487.5	11311.7	12612.5	12848.2	11144.5
70°	592.5	590.2	662.2	778.7	873.2	948.1	2989.0	9545.7	12315.1	12410.8	10413.7
72.5°	495.7	498.0	544.1	630.5	716.4	714.1	1313.5	6715.2	9688.1	10349.7	8301.3
75°	418.4	419.6	450.1	511.2	581.5	575.2	712.4	3638.0	5631.6	6092.1	4601.7
77.5°	356.2	357.3	376.9	410.9	461.1	458.8	519.9	1571.7	2349.2	2320.4	1574.0
80°	317.6	317.6	326.8	333.1	360.8	350.4	385.6	755.0	993.1	917.0	628.2
82.5°	249.0	250.1	306.6	304.3	284.1	270.9	270.9	445.0	526.2	486.4	367.7
85°	140.1	139.5	197.7	238.6	250.1	190.8	189.0	249.0	286.5	252.4	178.1
87.5°	59.9	61.1	91.6	106.1	141.8	118.7	117.0	128.5	145.8	126.2	82.4
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°	1626.5	1626.5	1626.5	1626.5	1626.5	1626.5	1626.5	1626.5	1626.5	1626.5	1626.5
2.5°	1627.1	1612.1	1579.2	1538.3	1501.4	1477.2	1455.3	1423.6	1425.3	1403.4	1387.3
5°	1625.9	1594.8	1518.7	1428.2	1341.2	1278.4	1231.1	1188.5	1178.1	1157.9	1145.8
7.5°	1627.1	1576.3	1448.4	1303.7	1195.9	1116.4	1076.1	1053.6	1048.4	1041.5	1042.1
10°	1631.1	1559.6	1371.2	1187.3	1074.3	1021.9	1012.1	1019.0	1027.1	1029.4	1030.0
12.5°	1640.3	1544.6	1286.4	1083.6	998.3	982.1	998.8	1022.5	1038.0	1045.5	1044.9
15°	1661.1	1533.1	1205.2	1002.3	956.2	964.8	996.0	1029.4	1051.9	1062.2	1062.8
17.5°	1683.6	1516.4	1121.6	940.0	925.1	947.0	985.6	1024.8	1052.4	1064.0	1066.3
20°	1712.9	1495.7	1034.0	893.4	895.7	920.4	956.8	996.0	1026.5	1036.3	1040.9
22.5°	1751.6	1473.2	957.3	855.3	862.2	881.3	909.5	943.5	970.0	974.6	978.7
25°	1803.4	1449.0	896.2	820.7	823.6	834.6	853.6	873.8	892.2	887.0	891.1
27.5°	1873.2	1428.2	850.7	789.0	783.9	786.2	796.0	802.3	812.1	797.7	799.4
30°	1955.0	1405.7	815.6	761.4	747.0	742.9	745.2	748.7	756.2	736.6	733.7
32.5°	2050.1	1378.7	782.7	737.2	717.0	708.9	710.1	719.3	748.1	736.0	729.7
35°	2160.8	1348.1	748.1	710.7	696.8	685.3	684.1	713.0	798.8	791.3	785.6
37.5°	2290.5	1317.6	713.5	680.7	681.8	669.2	665.1	698.0	808.6	779.2	775.2
40°	2455.3	1301.4	684.1	649.0	663.4	661.7	653.6	670.3	744.1	690.5	683.6
42.5°	2659.3	1303.7	662.2	615.0	641.5	659.9	647.3	647.8	674.3	634.0	627.7
45°	2911.2	1330.8	646.7	587.9	616.7	658.2	644.9	635.7	638.0	616.7	613.2
47.5°	3205.1	1386.7	635.7	565.4	593.1	651.9	644.4	632.3	627.1	615.6	612.7
50°	3531.9	1468.0	627.7	544.1	571.8	641.5	644.9	628.8	623.0	618.4	616.7
52.5°	3853.0	1560.8	615.6	525.6	555.0	628.8	646.7	625.4	619.0	615.6	613.8
55°	4210.9	1676.6	597.1	510.1	541.2	612.7	646.7	620.2	613.2	613.8	613.2
57.5°	4694.5	1864.0	575.2	496.8	524.5	593.1	635.7	614.4	605.8	606.3	606.9
60°	5450.1	2194.2	548.7	483.6	503.7	570.0	620.7	601.7	593.1	595.4	596.0
62.5°	6561.3	2678.9	514.1	464.0	481.8	545.2	600.0	585.6	576.9	582.7	582.7
65°	7716.3	3106.6	471.5	439.2	458.8	518.1	574.1	565.4	556.8	570.0	569.4
67.5°	8027.0	3010.9	428.8	412.1	435.7	488.2	542.9	538.3	533.7	556.8	555.6
70°	7130.7	2417.3	389.6	384.4	410.4	455.9	509.5	509.5	506.6	523.9	519.9
72.5°	5432.8	1714.1	352.2	355.0	381.6	420.7	473.2	477.2	472.6	481.3	477.8
75°	2908.3	981.0	314.7	322.8	345.8	385.0	432.8	436.9	434.0	433.4	435.2
77.5°	966.6	479.5	275.5	288.2	308.4	348.1	390.8	397.1	390.2	389.0	388.5
80°	430.5	301.4	232.3	249.0	266.9	306.0	346.4	351.6	344.1	354.5	341.2
82.5°	276.7	198.3	186.2	204.6	221.9	264.0	302.0	303.2	296.2	344.1	293.4
85°	134.3	122.8	140.1	156.8	171.8	207.5	250.1	250.7	233.4	212.7	205.2
87.5°	66.9	71.5	93.4	108.4	115.8	142.4	182.1	178.7	171.2	155.6	143.5
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)