

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: P300353

Luminaire Tested: **GLNA-AF-10-LED-E1-AFL-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300353  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-10-LED-E1-AFL-7050  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND  
Automotive Frontline OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 60237.6 lumens  
Efficiency: N/A  
Efficacy: 108.0 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B4 - U0 - G4

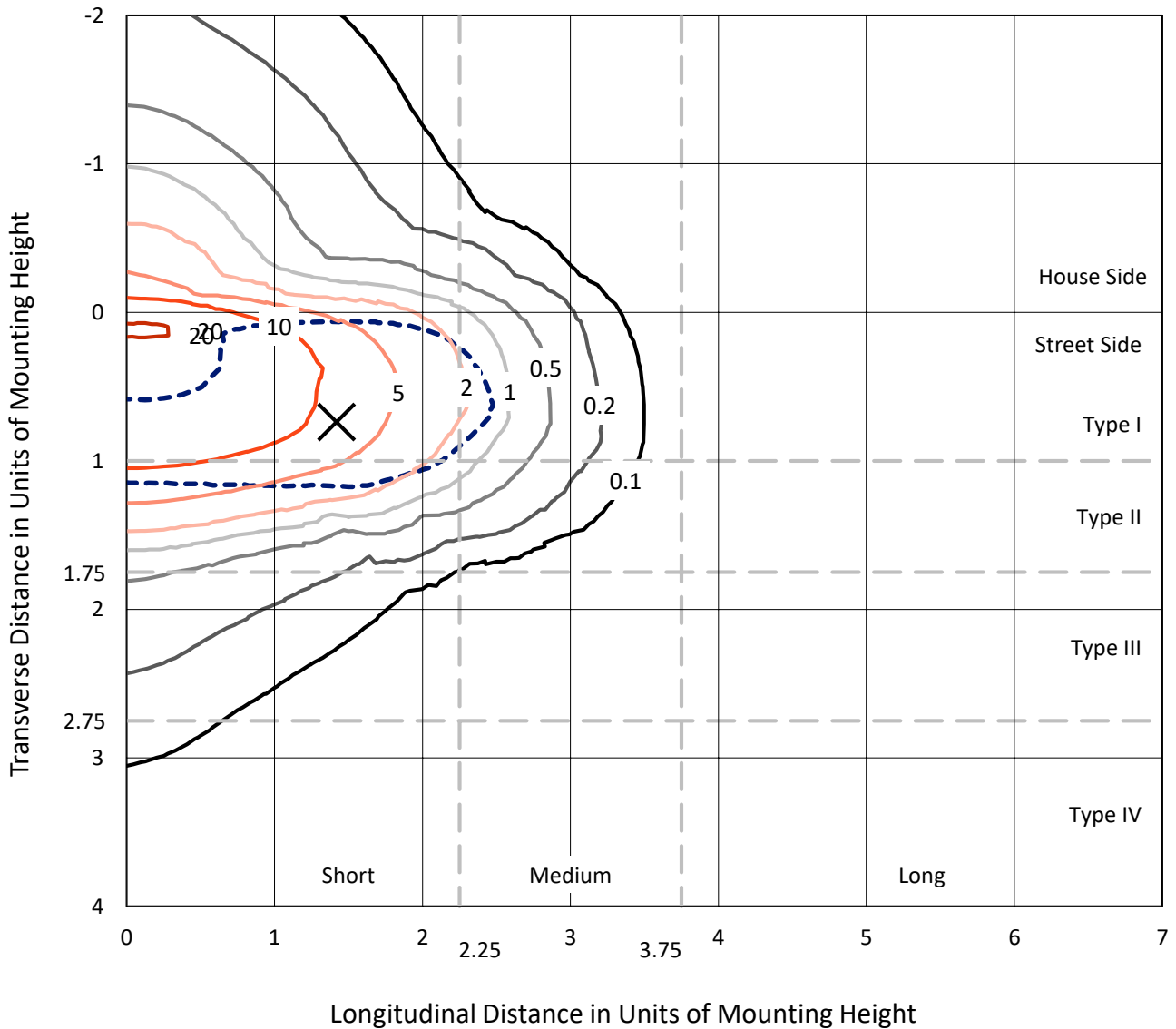
Input Watts (W): 558  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

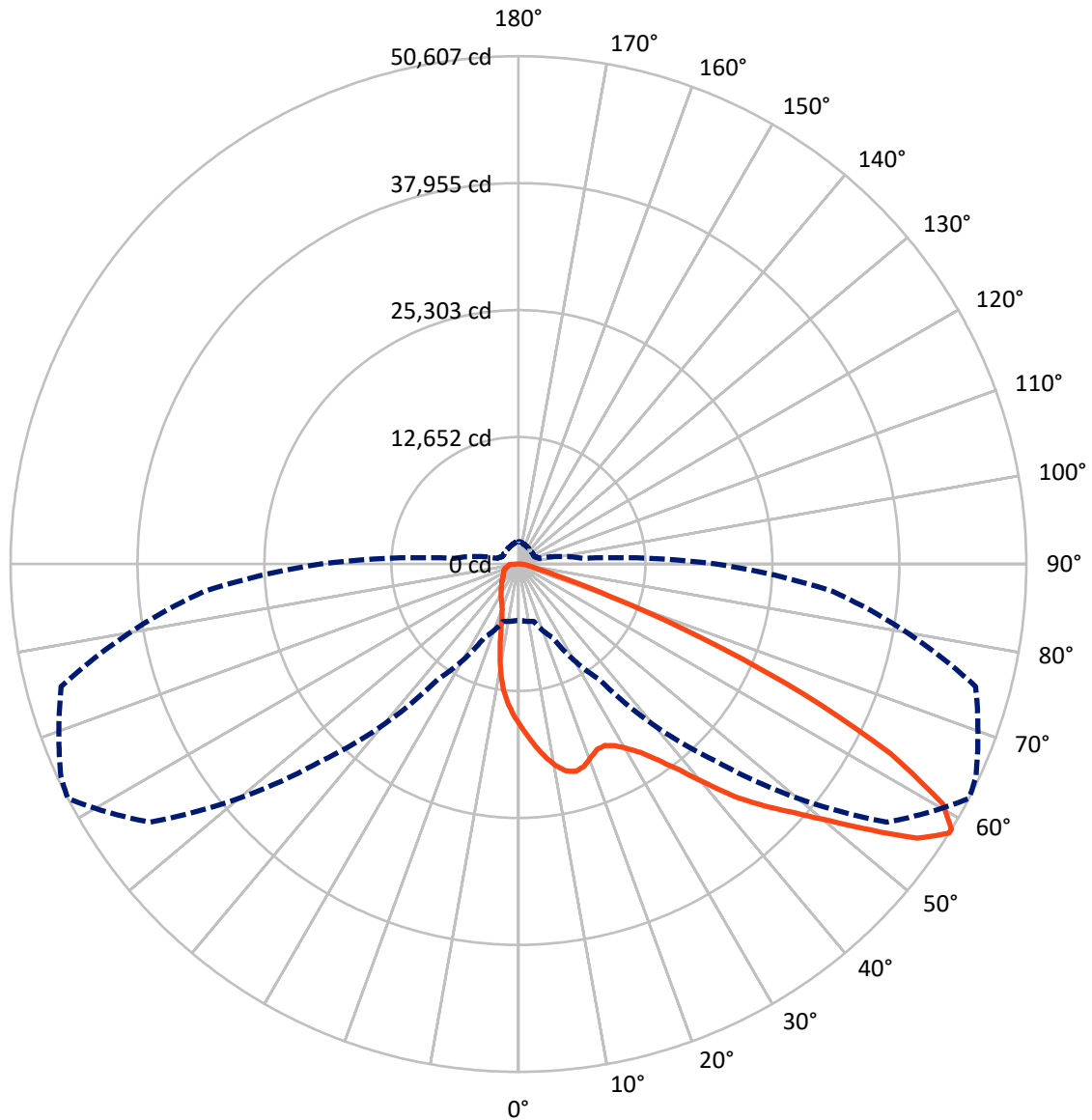
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 21.7 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral    - - - Horizontal Cone Through 58-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9186.5	0.0	9186.5
	% Fixture	15.3	0.0	15.3
<b>Street Side</b>	Lumens	51051.1	0.0	51051.1
	% Fixture	84.7	0.0	84.7
<b>Total</b>	Lumens	60237.6	0.0	60237.6
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1431.0	2.4
10°-20°	3658.0	6.1
20°-30°	5913.2	9.8
30°-40°	9387.2	15.6
40°-50°	13735.5	22.8
50°-60°	14366.1	23.8
60°-70°	8487.5	14.1
70°-80°	2391.0	4.0
80°-90°	868.1	1.4
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°	60237.6	100.0
0°-180°	60237.6	100.0



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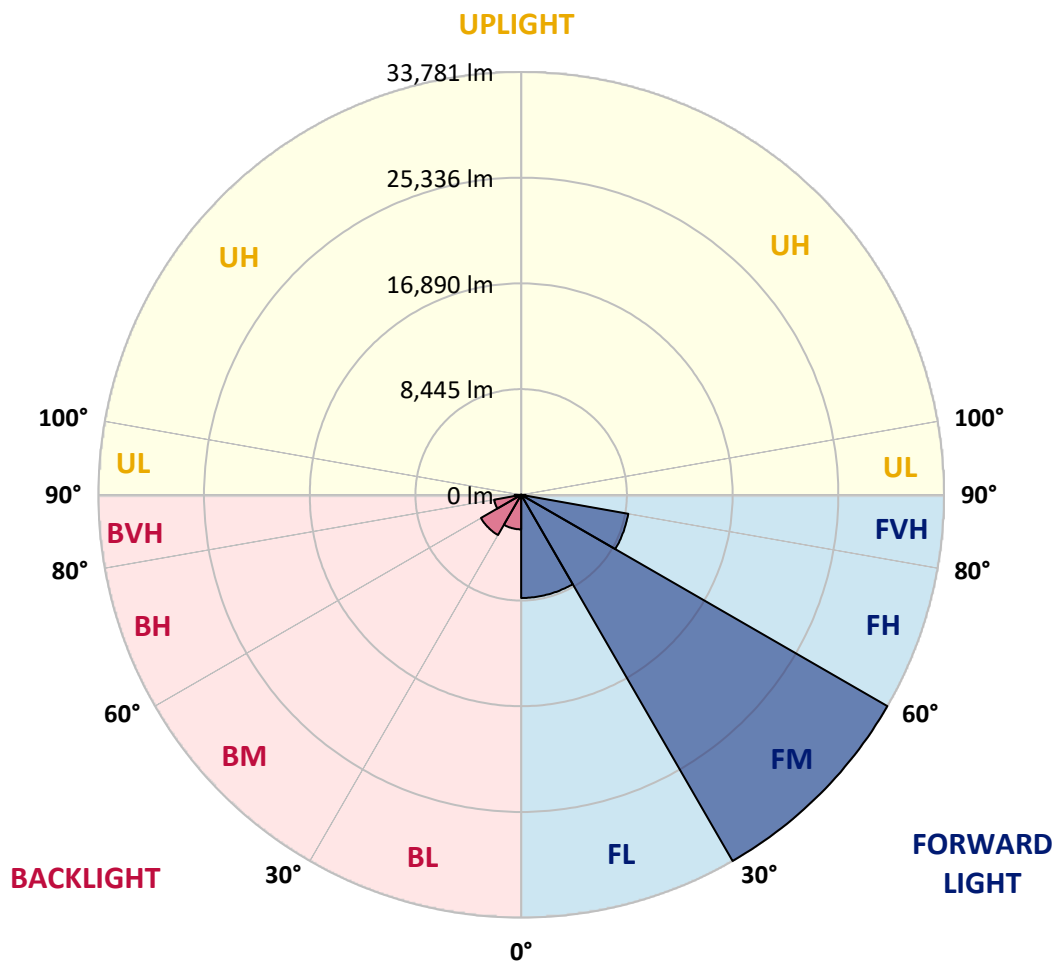
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	8241.3	13.7			
FM	(30°-60°)	33780.9	56.1			
FH	(60°-80°)	8686.5	14.4			G4/12000
FVH	(80°-90°)	342.5	0.6			G3/500
BL	(0°-30°)	2761.0	4.6	B4/5000		
BM	(30°-60°)	3707.9	6.2	B3/5000		
BH	(60°-80°)	2192.0	3.6	B3/2500		G3/2500
BVH	(80°-90°)	525.6	0.9			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B4-U0-G4**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	16000.9	16000.9	16000.9	16000.9	16000.9	16000.9	16000.9	16000.9	16000.9	16000.9	16000.9
2.5°	18284.3	18136.8	18043.2	17960.9	17853.2	17623.4	17314.2	17118.5	17019.2	16681.7	16281.7
5°	20077.0	19946.5	19850.1	19739.5	19546.6	19186.3	18687.1	18290.0	18094.3	17419.2	16619.3
7.5°	19657.2	19711.1	19878.4	20170.6	20420.2	20372.0	19926.7	19421.8	19163.6	18224.7	17010.7
10°	17127.0	17220.6	17509.9	18193.5	19299.8	20434.4	20780.5	20431.6	20170.6	19021.8	17413.5
12.5°	16619.3	16616.4	16639.1	16820.7	17478.7	19075.7	20808.8	21160.6	21004.5	19782.0	17824.8
15°	16826.3	16832.0	16815.0	16891.6	17095.8	17728.3	19940.8	21441.4	21552.0	20547.9	18250.3
17.5°	17370.9	17356.8	17291.5	17291.5	17365.3	17612.0	18919.7	21180.4	21691.0	21225.8	18624.7
20°	18284.3	18219.1	18046.0	17887.2	17807.8	17941.1	18499.9	20579.1	21449.9	21818.6	18933.9
22.5°	19390.6	19339.5	19058.7	18718.3	18443.2	18440.3	18715.5	20054.3	21032.9	22377.4	19194.8
25°	20820.2	20737.9	20320.9	19776.3	19294.1	19109.7	19186.3	20028.8	20806.0	22984.4	19427.4
27.5°	22499.4	22349.1	21855.5	21069.8	20360.7	19989.1	19878.4	20491.1	21013.1	23736.1	19750.8
30°	24536.0	24363.0	23730.5	22706.5	21705.2	21095.3	20859.9	21310.9	21699.5	24652.3	20269.9
32.5°	26853.5	26603.9	25872.0	24743.1	23426.9	22496.6	22113.6	22394.4	22703.6	25755.7	20919.4
35°	30055.9	29758.1	28700.1	27142.8	25656.5	24377.2	23764.5	23968.7	24269.4	27400.9	21858.3
37.5°	32240.1	32106.7	31403.3	29939.6	28322.8	26850.6	25903.2	26022.4	26192.6	29457.4	23061.0
40°	32220.2	32274.1	32288.3	32302.5	31201.9	29792.1	28773.8	28649.0	28615.0	31715.3	24428.2
42.5°	30606.2	30827.5	31542.3	32991.7	33661.2	33014.4	32081.2	31721.0	31542.3	34376.0	25877.7
45°	28135.6	28254.7	29593.6	32424.4	34920.6	36205.5	35499.2	34364.6	34041.3	36821.1	27080.4
47.5°	26862.0	26992.5	27834.9	30921.1	34906.4	38783.9	39192.4	37031.0	36452.3	38948.5	28118.6
50°	23829.7	24102.0	25162.9	28305.8	33632.8	39969.6	43052.9	40207.9	39010.9	41019.1	29159.6
52.5°	18261.6	18681.4	19869.9	24005.6	30402.0	39382.5	46141.9	44059.9	42369.3	43163.6	30053.1
55°	11519.2	11831.2	12829.6	16954.0	24320.5	36327.5	47313.4	48226.8	46723.4	45194.5	30827.5
57.5°	6263.1	6402.1	6776.5	9360.6	15819.4	29573.7	45605.8	50598.1	49974.1	46919.1	31411.8
58°	5605.0	5698.6	5931.2	8112.5	14029.5	27727.1	44848.5	50606.6	50294.6	47171.6	31457.2
60°	4158.4	4110.1	3903.1	4629.2	7809.0	19155.1	40270.3	48581.3	49497.5	47480.8	31235.9
62.5°	3653.5	3537.2	3114.5	3066.3	3798.1	8824.5	30813.3	41614.8	43779.1	45716.4	29891.4
65°	3432.2	3307.4	2762.8	2586.9	2740.1	3732.9	18151.0	31210.4	33925.0	40366.7	26453.5
67.5°	3267.7	3106.0	2538.7	2297.6	2308.9	2467.8	7275.7	19657.2	22712.1	30648.8	20576.2
70°	3108.8	2933.0	2348.7	2070.7	2005.4	1951.5	2893.3	9839.9	12611.2	19359.4	13119.0
72.5°	2938.7	2765.6	2181.3	1892.0	1764.3	1585.6	1889.1	4025.0	5622.0	9159.2	5951.1
75°	2691.9	2535.9	2013.9	1733.1	1551.6	1313.3	1426.8	2101.9	2521.7	3647.8	2867.7
77.5°	2388.4	2260.7	1826.7	1602.6	1375.7	1066.5	1097.7	1458.0	1616.8	2087.7	1704.8
80°	1716.1	1761.5	1625.3	1441.0	1225.4	865.1	842.5	1063.7	1148.8	1341.7	1109.1
82.5°	1205.5	1231.1	1344.5	1177.2	1012.6	680.8	621.2	748.8	799.9	882.2	598.5
85°	831.1	802.7	921.9	819.8	731.8	453.8	425.5	507.7	538.9	547.5	309.2
87.5°	499.2	499.2	533.3	439.7	394.3	235.4	229.8	289.3	309.2	295.0	170.2
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°	16000.9	16000.9	16000.9	16000.9	16000.9	16000.9	16000.9	16000.9	16000.9	16000.9	16000.9
2.5°	16043.4	15842.1	15413.7	15070.5	14636.5	14185.5	13933.1	13663.6	13479.2	13345.9	13558.6
5°	16165.4	15754.1	14869.1	14029.5	13102.0	12137.5	11405.7	10724.9	10251.2	9956.2	10234.2
7.5°	16358.3	15725.8	14316.0	12880.7	11215.7	9610.2	8174.9	7275.7	6751.0	6492.8	6654.5
10°	16579.5	15680.4	13666.4	11323.4	8940.8	6918.3	5846.1	5483.0	5363.9	5315.7	5338.4
12.5°	16763.9	15583.9	12869.4	9440.0	6714.1	5463.2	5154.0	5145.5	5171.0	5176.7	5185.2
15°	16894.4	15442.1	11686.5	7477.1	5369.6	4978.1	4961.1	5012.2	5060.4	5080.2	5091.6
17.5°	16982.3	15149.9	10350.5	5911.3	4810.8	4742.7	4782.4	4847.6	4898.7	4912.9	4924.2
20°	16973.8	14721.6	8759.2	4929.9	4507.3	4507.3	4575.3	4626.4	4629.2	4612.2	4620.7
22.5°	16885.9	14134.5	7216.1	4408.0	4237.8	4286.0	4354.1	4305.9	4107.3	3976.8	3985.3
25°	16738.4	13433.8	5894.3	4076.1	3988.2	4073.3	4053.4	3690.3	3406.7	3279.0	3279.0
27.5°	16607.9	12605.6	4878.8	3786.8	3738.6	3843.5	3491.8	3162.7	3043.6	2984.0	2964.2
30°	16514.3	11712.1	4200.9	3508.8	3503.1	3426.5	3029.4	2938.7	2918.8	2870.6	2853.6
32.5°	16537.0	10807.2	3766.9	3264.9	3284.7	2933.0	2808.2	2828.0	2811.0	2759.9	2737.3
35°	16724.2	9947.7	3483.3	3043.6	2984.0	2649.3	2677.7	2714.6	2708.9	2638.0	2615.3
37.5°	17058.9	9133.6	3296.1	2859.2	2603.9	2507.5	2552.9	2609.6	2595.4	2547.2	2530.2
40°	17410.7	8367.8	3142.9	2714.6	2379.9	2411.1	2450.8	2482.0	2496.2	2510.3	2499.0
42.5°	17753.9	7567.9	2955.7	2567.1	2286.2	2320.3	2337.3	2368.5	2445.1	2499.0	2496.2
45°	17958.1	6816.2	2762.8	2357.2	2212.5	2232.4	2221.0	2283.4	2377.0	2464.9	2467.8
47.5°	18185.0	6231.9	2609.6	2164.3	2141.6	2155.8	2121.7	2184.1	2269.2	2377.0	2388.4
50°	18460.2	5883.0	2487.6	2011.1	2045.1	2045.1	2036.6	2093.4	2212.5	2337.3	2360.0
52.5°	18772.2	5814.9	2385.5	1900.5	1948.7	1945.9	1954.4	2039.5	2169.9	2291.9	2311.8
55°	19152.3	5999.3	2274.9	1818.2	1855.1	1866.4	1894.8	1991.2	2101.9	2240.9	2249.4
57.5°	19594.8	6373.7	2187.0	1753.0	1770.0	1806.9	1852.3	1940.2	2059.3	2212.5	2221.0
58°	19668.5	6453.1	2172.8	1747.3	1753.0	1795.5	1846.6	1931.7	2050.8	2218.2	2226.7
60°	19671.4	6716.9	2141.6	1721.8	1687.7	1758.7	1815.4	1900.5	2036.6	2238.0	2257.9
62.5°	18973.6	6714.1	2118.9	1684.9	1619.7	1707.6	1772.8	1872.1	2022.4	2286.2	2326.0
65°	16707.2	6101.4	2011.1	1628.2	1565.8	1662.2	1736.0	1852.3	2062.2	2496.2	2521.7
67.5°	13067.9	5000.8	1809.7	1548.7	1494.9	1616.8	1713.3	1849.4	2104.7	2544.4	2561.4
70°	8640.1	3741.4	1588.5	1458.0	1421.1	1562.9	1724.6	1945.9	2056.5	2442.3	2396.9
72.5°	4484.6	2626.6	1409.8	1344.5	1336.0	1514.7	1889.1	1934.5	2008.3	2297.6	2240.9
75°	2354.3	1823.9	1253.7	1219.7	1233.9	1503.4	2229.5	1883.5	1945.9	2198.3	2306.1
77.5°	1441.0	1472.2	1120.4	1106.2	1134.6	1469.3	2226.7	1818.2	1855.1	2022.4	2141.6
80°	964.4	1194.2	1018.3	1021.2	1041.0	1344.5	1999.8	1716.1	1744.5	1911.8	2033.8
82.5°	609.9	706.3	924.7	972.9	947.4	1109.1	1699.1	1562.9	1602.6	2187.0	2311.8
85°	309.2	442.5	802.7	936.1	853.8	777.2	1378.6	1370.0	1389.9	1577.1	1648.0
87.5°	141.8	243.9	626.9	816.9	643.9	485.0	1001.3	1015.5	1094.9	1120.4	1120.4
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)