

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: P302811

Luminaire Tested: **GLNA-AF-09-LED-E1-T4W-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302811
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-09-LED-E1-T4W-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 50940.1 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G5

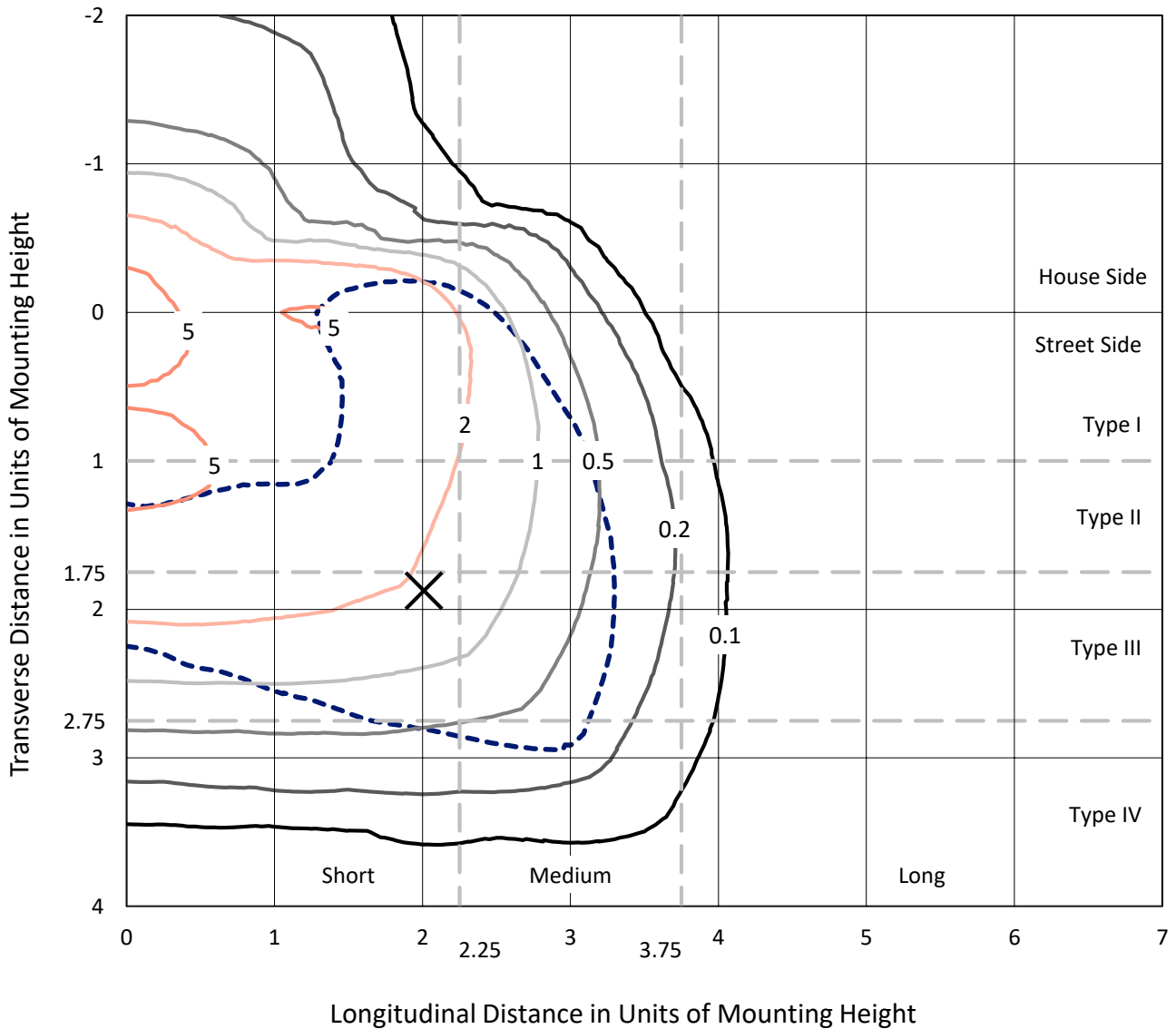
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

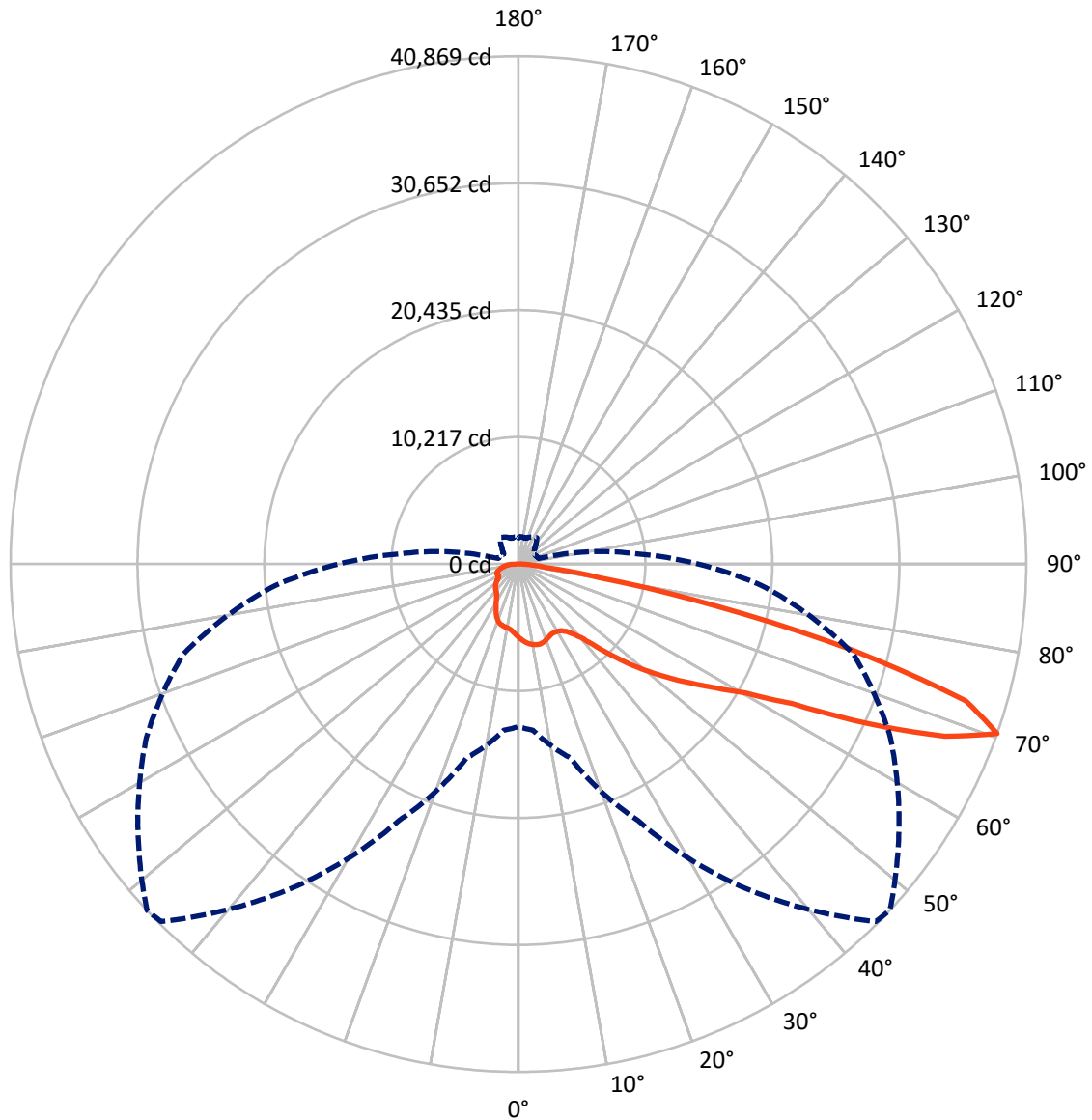
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.6 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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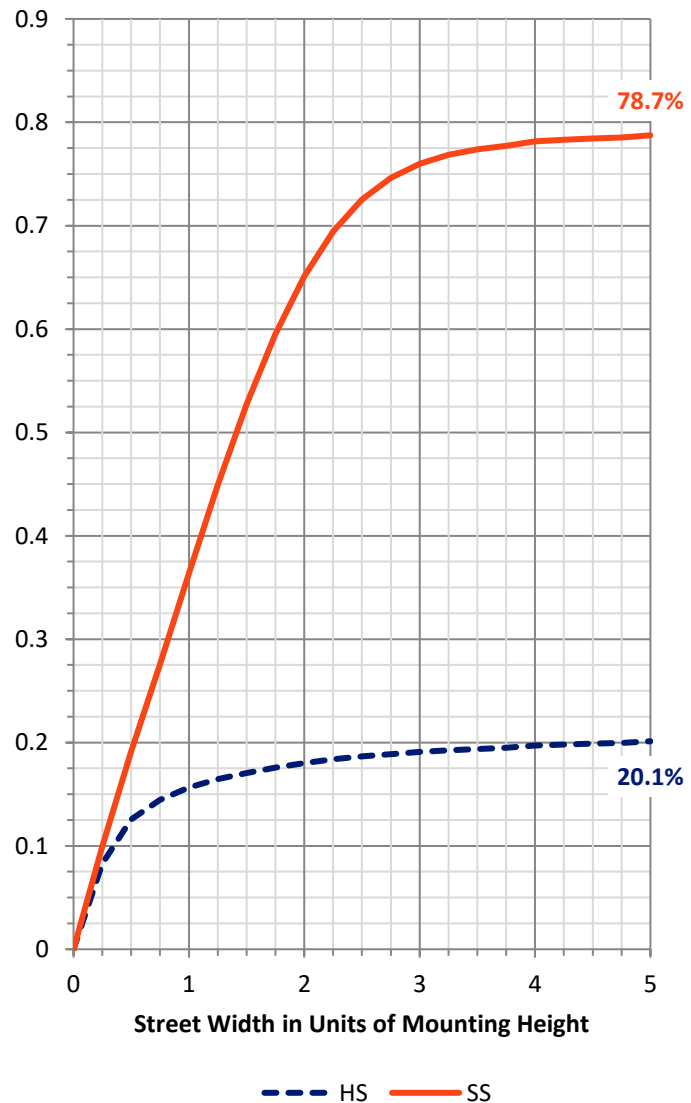
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10627.1	0.0	10627.1
	% Fixture	20.9	0.0	20.9
Street Side	Lumens	40313.0	0.0	40313.0
	% Fixture	79.1	0.0	79.1
Total	Lumens	50940.1	0.0	50940.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	566.3	1.1
10°-20°	1661.5	3.3
20°-30°	2453.6	4.8
30°-40°	3566.2	7.0
40°-50°	6417.9	12.6
50°-60°	11118.4	21.8
60°-70°	15869.2	31.2
70°-80°	8146.4	16.0
80°-90°	1140.5	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°	50940.1	100.0
0°-180°	50940.1	100.0

Coefficient of Utilization



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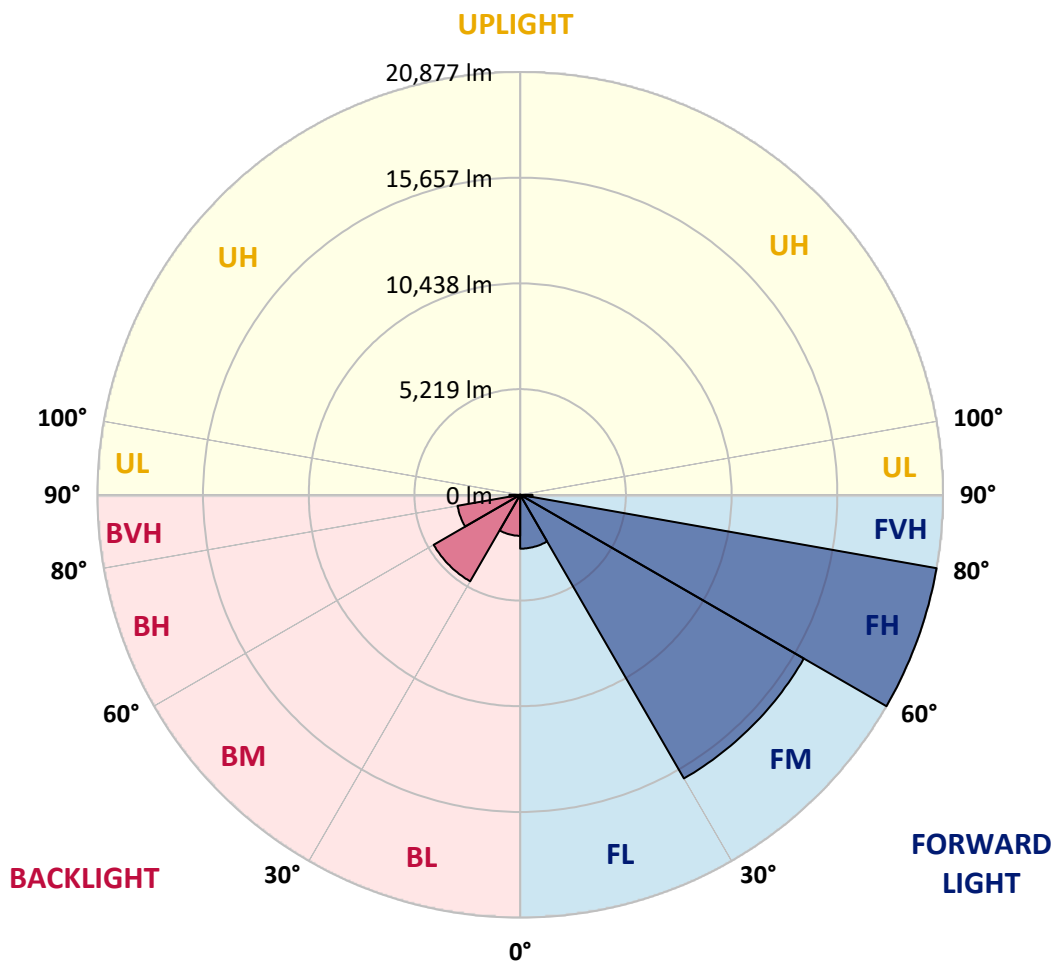
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2658.0	5.2			
FM	(30°-60°)	16169.8	31.7			
FH	(60°-80°)	20876.6	41.0			G5
FVH	(80°-90°)	608.6	1.2			G4/750
BL	(0°-30°)	2023.4	4.0	B3/2500		
BM	(30°-60°)	4932.8	9.7	B3/5000		
BH	(60°-80°)	3139.0	6.2	B4/5000		G4/5000
BVH	(80°-90°)	531.9	1.0			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	47°	55°	65°	75°	85°
0°	5910.5	5910.5	5910.5	5910.5	5910.5	5910.5	5910.5	5910.5	5910.5	5910.5	5910.5
2.5°	6257.8	6245.5	6240.6	6230.7	6218.3	6155.8	6143.4	6099.0	6037.3	5972.2	5905.6
5°	6669.4	6666.9	6638.9	6589.5	6510.5	6373.9	6341.8	6233.1	6086.6	5945.1	5804.3
7.5°	7030.7	7008.5	6956.6	6857.0	6718.8	6532.7	6488.3	6336.9	6136.0	5942.6	5751.6
10°	7295.7	7283.4	7169.8	7033.2	6852.1	6646.3	6594.5	6425.7	6205.2	5959.9	5722.0
12.5°	7447.2	7422.5	7290.8	7127.8	6912.2	6711.4	6658.7	6488.3	6240.6	5959.9	5680.0
15°	7437.3	7420.0	7288.3	7109.7	6892.4	6716.3	6669.4	6498.2	6233.1	5935.2	5625.7
17.5°	7238.9	7246.4	7135.2	6959.1	6780.5	6646.3	6604.4	6446.3	6182.9	5885.8	5561.5
20°	6892.4	6927.0	6852.1	6696.5	6596.9	6505.6	6478.4	6344.3	6106.4	5814.2	5491.6
22.5°	6545.1	6577.2	6547.6	6415.9	6401.1	6346.7	6331.9	6235.6	6039.7	5769.8	5449.6
25°	6289.9	6319.6	6314.6	6200.2	6245.5	6243.0	6230.7	6182.9	6024.9	5769.8	5457.0
27.5°	6220.8	6230.7	6220.8	6116.3	6178.0	6228.2	6218.3	6210.1	6069.4	5841.4	5551.6
30°	6458.7	6443.9	6366.5	6155.8	6213.4	6282.5	6272.7	6277.6	6202.7	6029.8	5762.3
32.5°	7407.7	7340.2	7097.4	6505.6	6354.1	6391.2	6396.1	6478.4	6490.8	6319.6	6089.1
35°	8827.5	8753.4	8438.2	7442.2	6792.8	6664.4	6664.4	6787.9	6862.0	6736.0	6596.9
37.5°	10332.1	10249.8	10081.8	8741.1	7714.7	7137.7	7125.4	7211.8	7318.0	7348.4	7383.0
40°	12041.6	11955.2	12002.1	10197.9	9001.1	7957.5	7781.4	7719.6	8006.9	8197.8	8476.0
42.5°	13913.3	13872.9	13890.2	11821.0	10465.4	9184.7	8934.5	8614.3	8961.6	9300.7	9883.5
45°	15645.0	15679.6	15662.3	13558.5	12096.7	10681.0	10416.0	9796.2	10136.2	10718.1	11667.9
47.5°	17161.9	17017.9	17241.0	15456.5	13923.1	12356.8	12029.2	11199.6	11543.6	12262.2	13868.0
50°	19003.2	18983.4	18656.6	17990.0	16130.6	14039.2	13610.4	12649.0	13184.0	14183.2	16641.8
52.5°	20939.0	20579.3	20279.7	19959.6	18473.1	15764.4	15238.4	14093.5	15112.5	16368.5	20022.1
55°	21334.9	21174.4	21545.6	22083.9	20730.8	17556.2	16943.8	15905.1	17283.8	18867.4	23920.2
57.5°	22182.7	22180.2	22949.0	23907.9	23055.2	19456.7	18839.4	18093.7	19724.2	21729.2	28058.6
60°	22755.6	22916.1	24344.1	26205.1	25337.5	21652.6	21084.7	20618.9	22500.4	24928.5	31914.7
62.5°	23055.2	23273.3	25221.5	27136.8	28564.0	25307.9	24740.8	24069.2	26173.0	28438.1	34170.0
65°	21809.0	22237.0	25084.9	27942.6	31389.6	31233.2	30978.1	29798.6	30764.9	31211.0	33355.1
67.5°	18358.7	18797.4	22113.6	27191.1	33407.0	36948.7	37003.0	34988.1	33590.5	31448.9	28043.8
70°	13080.3	13424.4	16168.5	22797.5	31870.3	40683.0	40869.0	37379.1	33027.5	27889.9	19593.3
72.5°	6210.1	6420.8	9018.4	14837.6	25290.6	37275.4	37635.1	34326.3	28083.3	20648.5	10688.5
75°	2282.4	2346.6	3047.8	6312.2	14668.8	27489.1	27912.9	24606.7	18616.3	10280.2	4071.8
77.5°	1368.0	1409.9	1710.4	2664.3	5769.8	15712.5	16338.9	13382.4	8136.1	3826.5	2002.5
80°	956.4	986.0	1226.4	1657.7	2726.0	5987.9	6545.1	5461.9	3241.3	2421.5	1456.8
82.5°	646.9	661.8	862.6	1120.2	1811.6	2138.3	2307.1	2428.9	2186.1	1801.7	924.3
85°	423.9	438.7	585.2	738.3	1152.3	1105.4	1130.1	1429.7	1595.9	1223.9	512.8
87.5°	242.8	252.7	352.3	394.3	565.5	468.3	473.3	753.1	1021.4	825.5	311.9
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5910.5	5910.5	5910.5	5910.5	5910.5	5910.5	5910.5	5910.5	5910.5	5910.5	5910.5
2.5°	5888.3	5856.2	5784.6	5739.3	5697.3	5687.4	5670.2	5667.7	5665.2	5665.2	5657.8
5°	5756.6	5702.3	5591.1	5528.6	5476.7	5471.8	5469.3	5481.7	5486.6	5491.6	5484.1
7.5°	5672.6	5598.6	5459.5	5370.6	5308.8	5293.2	5318.7	5375.5	5412.5	5427.4	5419.9
10°	5620.8	5528.6	5368.1	5271.0	5219.1	5211.7	5243.8	5311.3	5387.8	5417.5	5415.0
12.5°	5561.5	5457.0	5285.8	5184.6	5154.9	5169.7	5211.7	5273.4	5353.3	5400.2	5402.7
15°	5501.4	5380.4	5204.3	5115.4	5103.1	5122.8	5162.3	5209.2	5271.0	5318.7	5323.7
17.5°	5429.8	5303.1	5127.8	5035.6	5025.7	5035.6	5038.0	5062.7	5103.1	5147.5	5159.9
20°	5353.3	5224.1	5040.5	4949.2	4904.7	4865.2	4819.9	4824.9	4837.2	4882.5	4892.4
22.5°	5298.1	5169.7	4973.8	4847.1	4728.6	4609.2	4520.3	4508.0	4512.9	4550.0	4562.3
25°	5303.1	5167.3	4956.6	4738.4	4478.4	4287.4	4168.1	4148.3	4145.8	4173.0	4191.1
27.5°	5400.2	5263.6	5020.8	4626.5	4205.9	3922.8	3796.8	3782.0	3762.3	3769.7	3789.4
30°	5615.8	5489.1	5177.1	4512.9	3910.4	3566.4	3434.7	3419.9	3392.7	3380.4	3395.2
32.5°	5967.3	5863.6	5405.1	4403.5	3615.8	3261.0	3127.7	3095.6	3078.3	3063.5	3075.8
35°	6552.5	6508.1	5709.7	4284.9	3355.7	3025.6	2904.6	2855.2	2830.6	2857.7	2877.5
37.5°	7469.4	7494.1	6108.9	4098.9	3154.8	2870.1	2768.0	2711.2	2674.2	2696.4	2718.6
40°	8768.2	8785.5	6550.0	3836.4	2981.2	2777.9	2669.2	2617.4	2564.7	2525.2	2522.7
42.5°	10472.8	10297.5	6983.8	3551.6	2780.3	2721.1	2600.1	2535.1	2456.1	2346.6	2324.4
45°	12495.1	11878.6	7313.0	3224.0	2554.8	2651.9	2522.7	2433.8	2309.5	2191.0	2178.7
47.5°	14825.2	13575.8	7474.3	2884.9	2344.1	2549.9	2428.9	2287.3	2130.9	2071.7	2064.3
50°	17669.8	15590.7	7550.9	2554.8	2161.4	2416.5	2292.3	2126.0	1995.1	1982.8	1975.4
52.5°	20909.4	18014.6	7576.4	2284.9	2009.9	2242.9	2181.1	2019.8	1915.3	1926.0	1926.0
55°	24299.6	20517.6	7238.9	2089.0	1870.8	2064.3	2106.2	1977.8	1890.6	1930.9	1945.7
57.5°	27411.7	22735.8	6178.0	1938.3	1740.0	1928.5	2079.1	2017.4	1958.1	2118.6	2128.5
60°	29801.1	24046.1	4614.2	1801.7	1642.9	1880.7	2151.5	2168.8	2183.6	2567.2	2619.8
62.5°	30301.5	23610.7	3172.1	1695.5	1598.4	1921.1	2282.4	2284.9	2267.6	2535.1	2567.2
65°	28004.3	20851.8	2307.1	1635.5	1561.4	1992.7	2394.3	2341.6	2228.1	2431.4	2371.3
67.5°	22239.5	15710.0	1921.1	1591.0	1507.1	1987.7	2512.8	2394.3	2205.8	2382.0	2284.9
70°	14435.9	9499.1	1710.4	1554.0	1442.0	1893.1	2582.0	2389.4	2140.8	2215.7	2101.3
72.5°	7043.1	4247.9	1568.8	1499.6	1375.4	1762.2	2579.5	2344.1	2074.1	2069.2	2007.5
75°	2755.7	1945.7	1439.6	1417.3	1261.8	1613.2	2510.4	2279.9	1995.1	1915.3	1893.1
77.5°	1613.2	1387.7	1276.6	1296.3	1125.1	1464.3	2409.1	2168.8	1885.7	1791.8	1767.1
80°	1174.5	1038.7	1088.1	1120.2	961.4	1316.1	2272.5	2032.2	1764.7	1811.6	1777.0
82.5°	753.1	669.2	882.3	914.4	800.9	1164.7	2123.5	1888.1	1593.5	1447.0	1412.4
85°	384.4	423.9	656.8	696.3	617.3	956.4	1943.3	1698.0	1400.1	1204.2	1223.9
87.5°	215.6	289.7	418.9	468.3	436.2	735.8	1576.2	1400.1	1142.4	929.3	818.1
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)