

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: P299153

Luminaire Tested: **GLNA-AF-10-LED-E1-SL2-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299153
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
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-SL2-7050
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 57517.5 lumens
Efficiency: N/A
Efficacy: 103.1 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G5

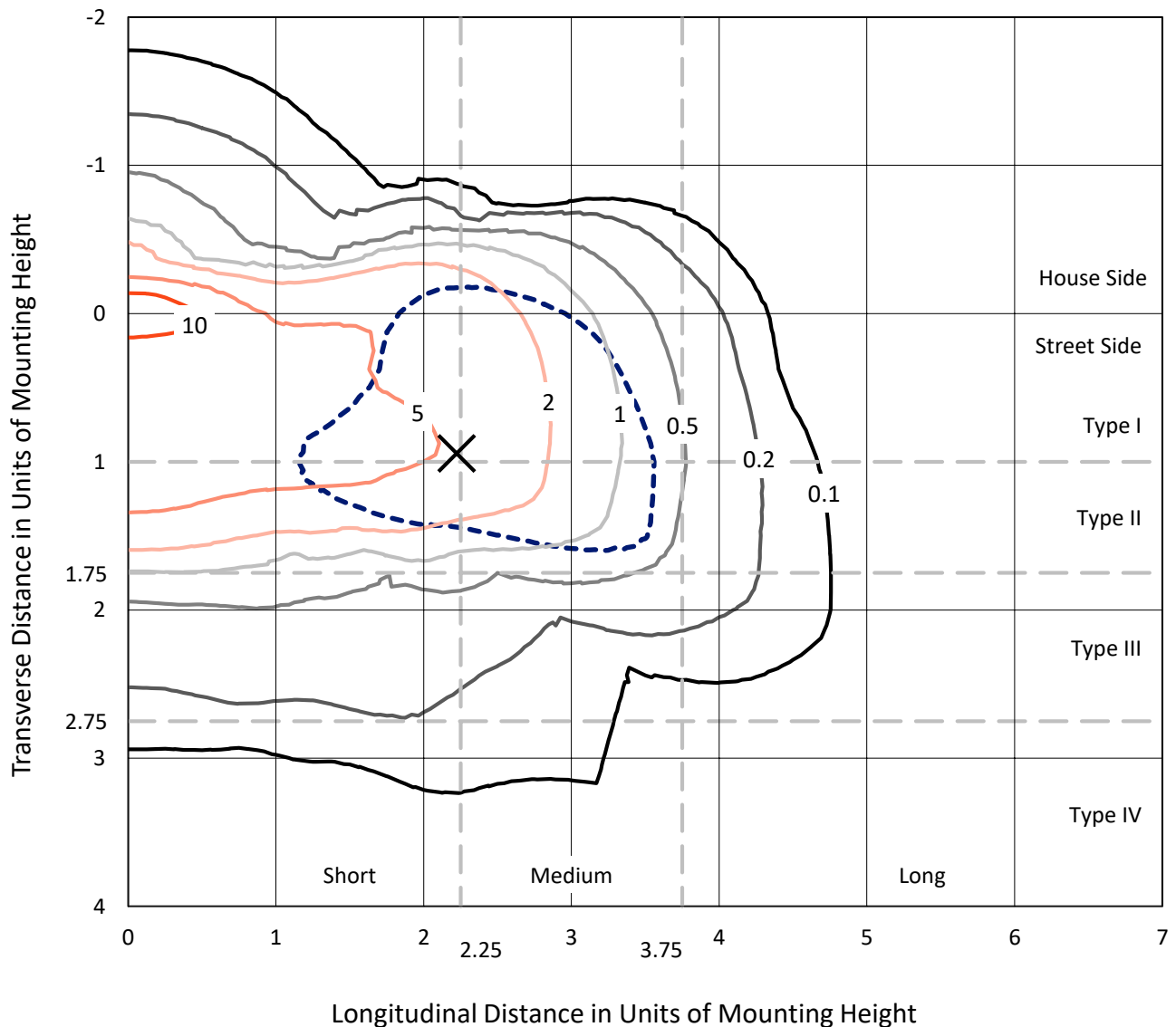
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

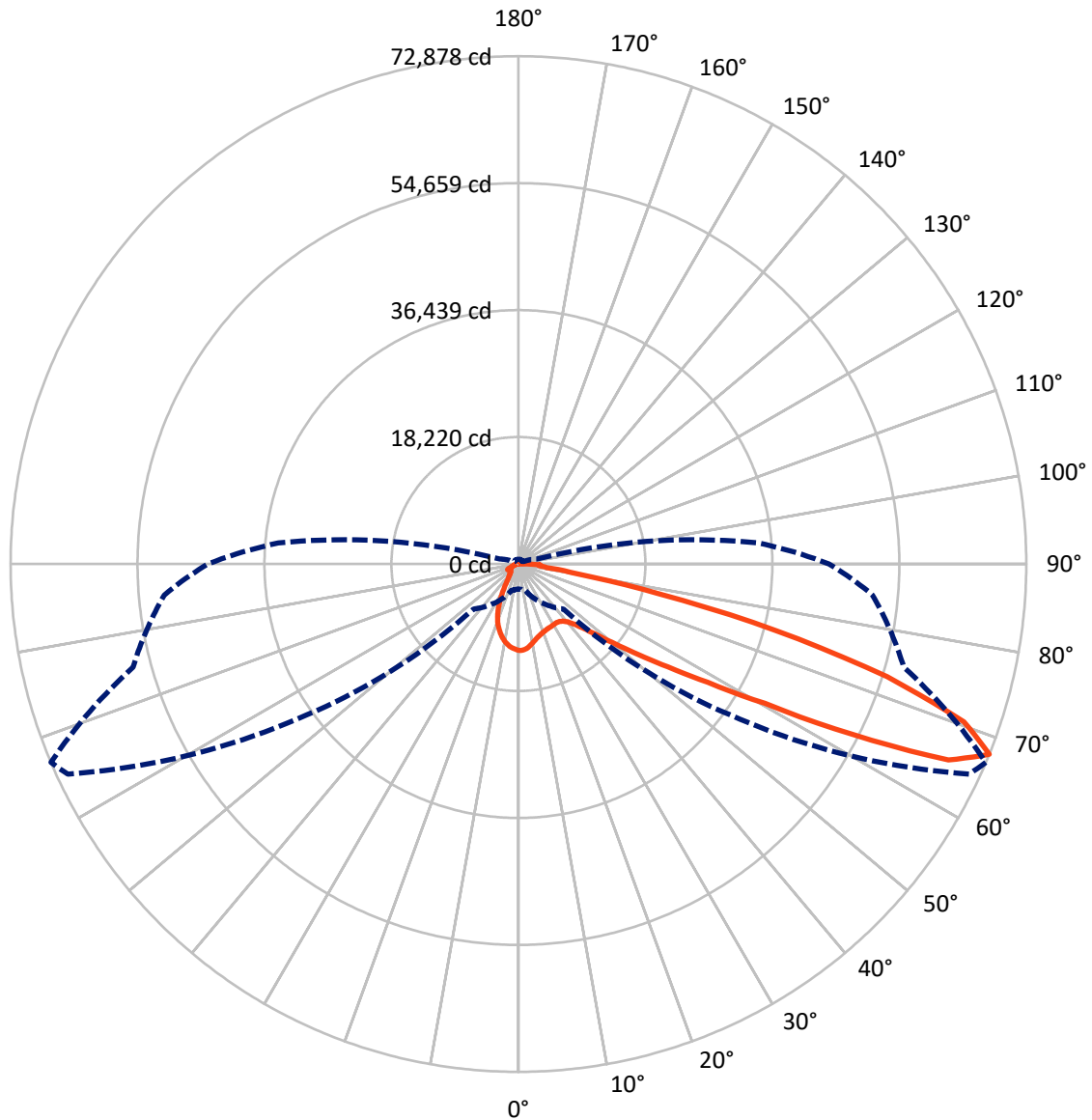
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.8 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9530.0	0.0	9530.0
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	47987.5	0.0	47987.5
	% Fixture	83.4	0.0	83.4
Total	Lumens	57517.5	0.0	57517.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1058.5	1.8
10°-20°	2449.1	4.3
20°-30°	3319.8	5.8
30°-40°	4719.4	8.2
40°-50°	7895.8	13.7
50°-60°	12491.0	21.7
60°-70°	15912.3	27.7
70°-80°	8334.9	14.5
80°-90°	1336.8	2.3
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°	57517.5	100.0
0°-180°	57517.5	100.0

Coefficient of Utilization



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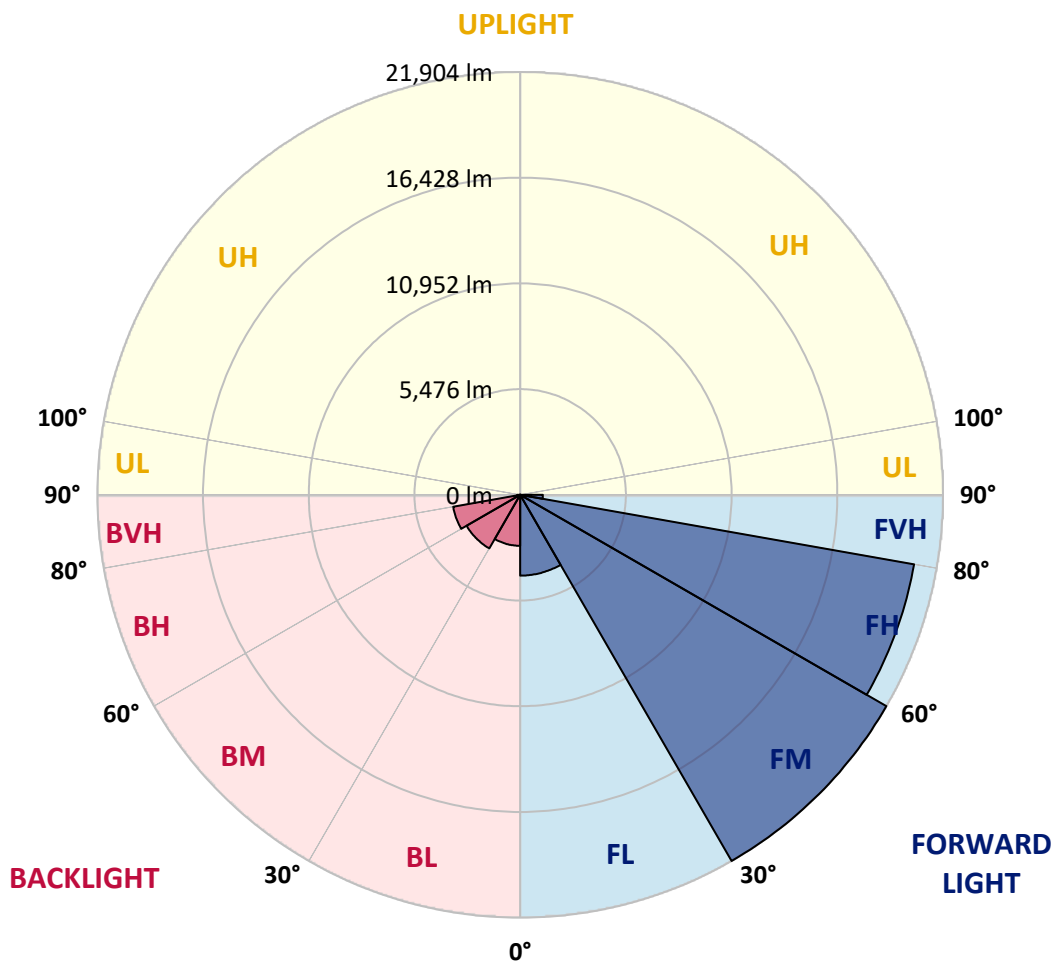
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4185.9	7.3			
FM	(30°-60°)	21903.8	38.1			
FH	(60°-80°)	20722.3	36.0			G5
FVH	(80°-90°)	1175.4	2.0			G5
BL	(0°-30°)	2641.5	4.6	B4/5000		
BM	(30°-60°)	3202.4	5.6	B3/5000		
BH	(60°-80°)	3524.8	6.1	B4/5000		G4/5000
BVH	(80°-90°)	161.3	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	12406.4	12406.4	12406.4	12406.4	12406.4	12406.4	12406.4	12406.4	12406.4	12406.4	12406.4
2.5°	11895.8	11915.7	11978.1	12017.8	12196.5	12273.1	12327.0	12380.9	12389.4	12414.9	12389.4
5°	10647.8	10690.4	10806.7	10937.1	11283.2	11555.5	11841.9	12139.8	12193.7	12386.5	12440.4
7.5°	9680.6	9669.3	9765.7	9921.7	10276.2	10653.5	11155.5	11748.3	11864.6	12298.6	12508.5
10°	8974.3	8965.8	9067.9	9229.6	9567.2	9924.5	10491.8	11303.0	11467.5	12159.6	12573.7
12.5°	8452.4	8455.3	8557.4	8736.1	9079.3	9439.5	10015.3	10871.9	11081.8	11997.9	12641.8
15°	8106.4	8129.1	8211.4	8401.4	8736.1	9096.3	9660.8	10548.5	10784.0	11870.3	12718.4
17.5°	7990.1	8027.0	8055.4	8194.3	8480.8	8841.0	9394.1	10310.3	10559.9	11782.4	12786.5
20°	8097.9	8140.4	8086.6	8134.8	8316.3	8634.0	9184.2	10123.1	10378.4	11683.1	12795.0
22.5°	8560.2	8599.9	8441.1	8302.1	8290.8	8483.6	9011.2	9975.6	10239.4	11609.4	12797.8
25°	9374.3	9399.8	9133.2	8809.8	8495.0	8429.8	8889.3	9873.5	10154.3	11544.1	12743.9
27.5°	10372.7	10392.5	10086.2	9609.7	8977.2	8557.4	8846.7	9813.9	10106.1	11487.4	12653.1
30°	11586.7	11680.3	11269.0	10667.7	9745.8	8934.6	8931.8	9782.7	10052.2	11391.0	12474.5
32.5°	12829.0	12868.7	12585.1	11975.2	10781.1	9598.4	9170.1	9805.4	10038.0	11274.7	12247.5
35°	14088.4	14139.4	13955.0	13464.4	12196.5	10571.2	9635.2	9938.7	10125.9	11234.9	12088.7
37.5°	15719.3	15787.4	15532.1	14964.8	13918.2	11890.2	10409.6	10273.4	10395.4	11348.4	12040.5
40°	18297.6	18266.4	17520.4	16675.1	15801.5	13577.8	11515.8	10840.7	10911.6	11714.3	12188.0
42.5°	21298.5	21221.9	19937.0	18609.6	17872.1	15620.0	12979.3	11824.9	11810.7	12434.7	12707.0
45°	23692.4	23630.0	22472.7	20836.1	20246.2	17945.9	14871.2	13291.3	13186.4	13577.8	13665.7
47.5°	24988.6	24991.5	24324.9	22989.0	22974.8	20901.4	17302.0	15413.0	15231.4	15415.8	15322.2
50°	24534.8	24594.4	24523.4	24098.0	25465.1	24775.9	20475.9	18371.3	18005.4	18186.9	17826.7
52.5°	22339.4	22416.0	22835.8	23488.2	26511.8	29458.8	25138.9	22047.3	21621.8	21556.6	21156.6
55°	18447.9	18541.5	19398.1	21170.8	25641.0	32604.3	32496.5	26733.0	26055.1	25439.6	25269.4
57.5°	12715.5	12871.5	14250.0	16882.2	22824.4	33554.5	41258.2	33412.7	32034.2	29884.2	29923.9
60°	7167.6	7349.1	8974.3	11365.4	17140.3	32522.1	47923.7	43530.1	40620.0	35089.0	35384.0
62.5°	4558.1	4753.8	5987.6	7896.5	10284.8	26962.7	50655.1	57595.8	53900.0	41504.9	41794.2
65°	3690.1	3775.2	4356.7	6518.0	7468.2	16244.0	48581.7	69182.4	67804.0	49648.2	48298.1
67.5°	3602.2	3630.6	3931.2	5471.4	7161.9	9130.3	38750.8	71349.4	72878.3	57252.6	51006.8
70°	3559.7	3658.9	4430.4	5221.8	6858.4	7700.8	23286.8	65410.0	67823.8	59240.9	47401.8
72.5°	1727.4	1721.7	2229.4	4722.6	7726.3	7987.3	11963.9	52924.2	55346.5	51324.5	38952.2
75°	1392.7	1273.5	1216.8	1730.2	7428.5	8248.2	7624.2	36416.4	38169.3	34411.1	23944.8
77.5°	1321.8	1179.9	1080.7	1083.5	3139.9	8747.4	6458.5	20155.4	20666.0	15543.4	6560.6
80°	1094.8	964.4	893.5	1006.9	1520.3	8330.5	6983.2	9121.8	8370.2	3817.8	2184.0
82.5°	760.2	692.1	672.2	845.2	1216.8	5936.6	8120.6	4901.3	4109.9	1911.7	1347.3
85°	485.0	414.1	459.5	615.5	947.4	2740.0	8364.5	3820.6	3037.8	1214.0	760.2
87.5°	224.1	181.5	226.9	340.4	618.3	944.5	7958.9	4291.5	3128.5	641.0	479.4
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°	12406.4	12406.4	12406.4	12406.4	12406.4	12406.4	12406.4	12406.4	12406.4	12406.4	12406.4
2.5°	12412.1	12358.2	12315.6	12236.2	12148.3	12063.2	11986.6	11890.2	11861.8	11836.3	11876.0
5°	12451.8	12397.9	12241.9	11997.9	11728.5	11476.0	11223.6	11008.0	10874.7	10801.0	10843.5
7.5°	12511.3	12434.7	12111.4	11663.2	11178.2	10735.7	10279.1	9913.2	9643.7	9516.1	9553.0
10°	12565.2	12417.7	11890.2	11217.9	10508.8	9850.8	9130.3	8534.7	8092.2	7859.6	7916.4
12.5°	12587.9	12352.5	11581.0	10662.0	9689.1	8724.7	7663.9	6773.3	6138.0	5905.4	5857.1
15°	12610.6	12278.7	11240.6	10029.5	8699.2	7334.9	5848.6	4782.2	4254.6	4138.3	4112.8
17.5°	12616.3	12151.1	10854.9	9343.1	7539.1	5681.3	3999.3	3321.4	3324.3	3511.5	3534.1
20°	12556.7	11961.1	10386.9	8489.3	6149.3	3928.4	2745.6	2629.3	3057.6	3525.6	3582.4
22.5°	12420.6	11708.6	9856.5	7493.7	4558.1	2586.8	2124.5	2252.1	2805.2	3378.1	3443.4
25°	12247.5	11402.3	9229.6	6339.3	3017.9	1849.3	1781.3	1937.3	2311.7	2694.6	2731.4
27.5°	12012.1	11039.2	8526.2	5017.6	1959.9	1523.1	1568.5	1673.5	1826.6	1996.8	2013.8
30°	11708.6	10605.3	7774.6	3658.9	1480.6	1370.0	1435.2	1491.9	1557.2	1653.6	1662.1
32.5°	11359.8	10188.3	7003.1	2527.2	1313.2	1290.6	1341.6	1370.0	1421.0	1480.6	1486.3
35°	11067.6	9791.2	6203.2	1786.9	1242.3	1231.0	1265.0	1276.4	1324.6	1389.8	1395.5
37.5°	10900.3	9467.9	5377.8	1440.9	1194.1	1177.1	1197.0	1197.0	1265.0	1361.5	1375.7
40°	10911.6	9289.2	4552.4	1301.9	1154.4	1131.7	1134.6	1134.6	1222.5	1327.4	1335.9
42.5°	11220.8	9334.6	3820.6	1248.0	1123.2	1097.7	1083.5	1092.0	1165.8	1233.8	1239.5
45°	11946.9	9655.1	3134.2	1214.0	1092.0	1083.5	1052.3	1049.5	1077.8	1109.0	1109.0
47.5°	13138.2	10287.6	2669.0	1191.3	1066.5	1063.6	1026.8	989.9	987.1	998.4	998.4
50°	15075.4	11376.8	2357.0	1165.8	1049.5	1026.8	984.2	927.5	907.6	916.2	916.2
52.5°	17979.9	13319.7	2237.9	1131.7	1012.6	975.7	927.5	870.8	853.8	856.6	856.6
55°	21789.2	16303.6	2220.9	1092.0	972.9	913.3	873.6	831.1	811.2	816.9	816.9
57.5°	26443.7	20430.5	2524.4	1029.6	919.0	850.9	828.2	799.9	785.7	794.2	791.4
60°	32102.3	25831.0	3744.0	964.4	865.1	794.2	794.2	771.5	760.2	768.7	765.8
62.5°	38620.3	32034.2	5264.3	916.2	808.4	748.8	760.2	748.8	737.5	743.1	740.3
65°	44400.9	36076.1	4929.6	879.3	751.6	706.3	726.1	720.4	711.9	717.6	714.8
67.5°	44568.2	34578.5	2768.3	839.6	697.8	663.7	692.1	689.2	683.6	689.2	686.4
70°	39774.7	29197.8	1560.0	765.8	641.0	612.7	652.4	649.5	643.9	655.2	652.4
72.5°	31866.9	21187.9	1140.2	675.1	584.3	558.8	604.2	601.3	601.3	618.3	609.8
75°	18337.3	10903.1	910.5	578.6	524.7	504.9	544.6	547.4	553.1	575.8	558.8
77.5°	5227.5	3398.0	743.1	490.7	451.0	442.5	482.2	487.9	490.7	516.2	493.5
80°	1942.9	1565.7	612.7	411.3	368.7	371.6	408.4	416.9	419.8	445.3	416.9
82.5°	1239.5	1032.4	496.4	317.7	289.3	286.5	331.9	343.2	343.2	346.0	329.0
85°	723.3	618.3	374.4	229.7	204.2	195.7	246.8	266.6	258.1	252.4	241.1
87.5°	485.0	425.5	229.7	127.6	110.6	104.9	144.7	158.8	153.2	144.7	136.1
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)