

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: P299209

Luminaire Tested: **GLNA-AF-10-LED-E1-T3-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299209
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
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-T3-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 41221.2 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 419
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

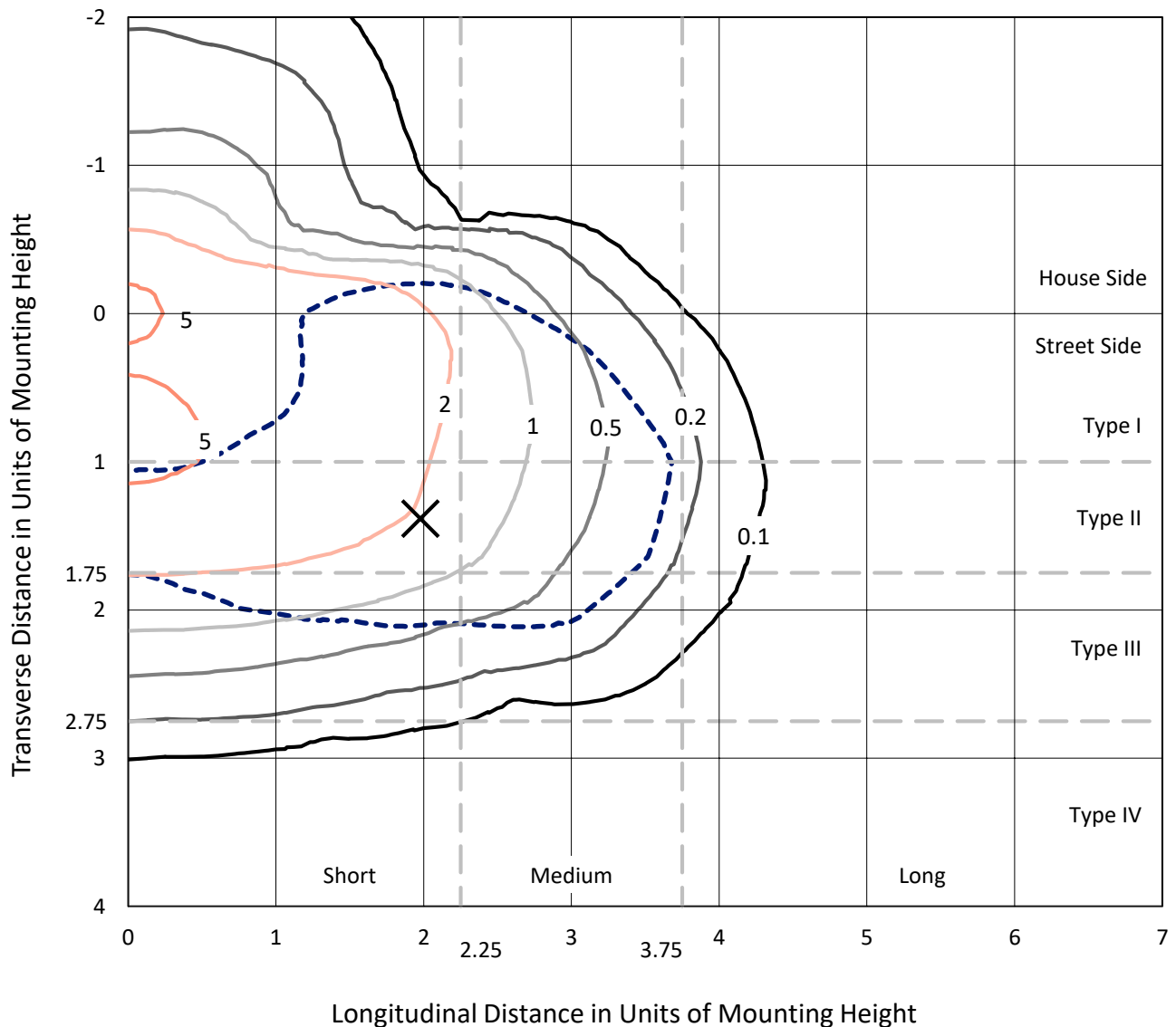


REPORT NUMBER: P299209

CATALOG NUMBER: GLNA-AF-10-LED-E1-T3-7027-800

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

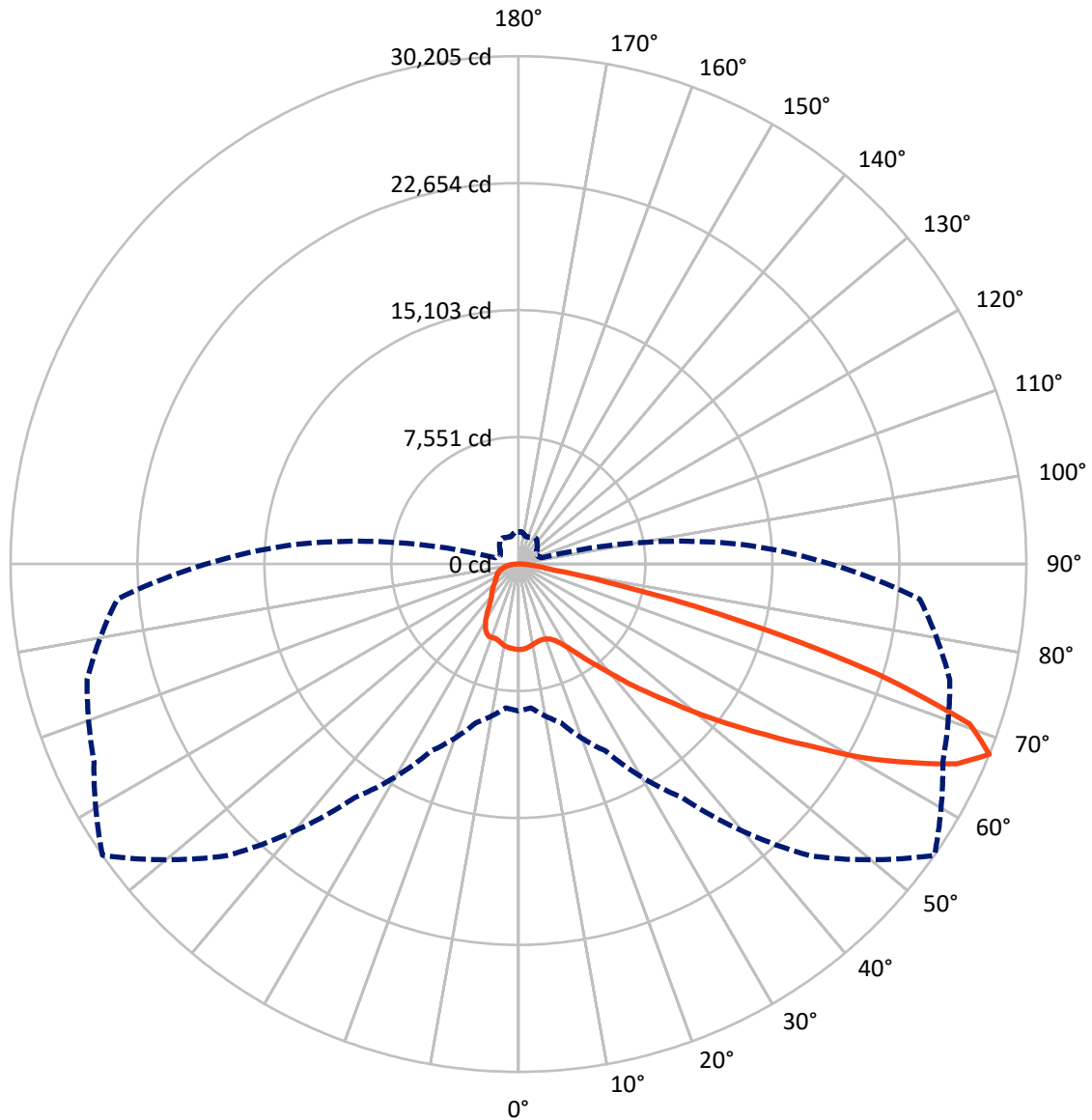


Based on 30 foot mounting height. Maximum calculated value = 5.8 fc
 Type III - Short - Full Cutoff

REPORT NUMBER: P299209

CATALOG NUMBER: GLNA-AF-10-LED-E1-T3-7027-800

Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P299209

CATALOG NUMBER: GLNA-AF-10-LED-E1-T3-7027-800

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8904.6	0.0	8904.6
	% Fixture	21.6	0.0	21.6
Street Side	Lumens	32316.5	0.0	32316.5
	% Fixture	78.4	0.0	78.4
Total	Lumens	41221.2	0.0	41221.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	474.4	1.2
10°-20°	1343.7	3.3
20°-30°	2250.9	5.5
30°-40°	3701.4	9.0
40°-50°	6230.6	15.1
50°-60°	9806.5	23.8
60°-70°	11703.0	28.4
70°-80°	5025.5	12.2
80°-90°	685.2	1.7
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°	41221.2	100.0
0°-180°	41221.2	100.0



REPORT NUMBER: P299209

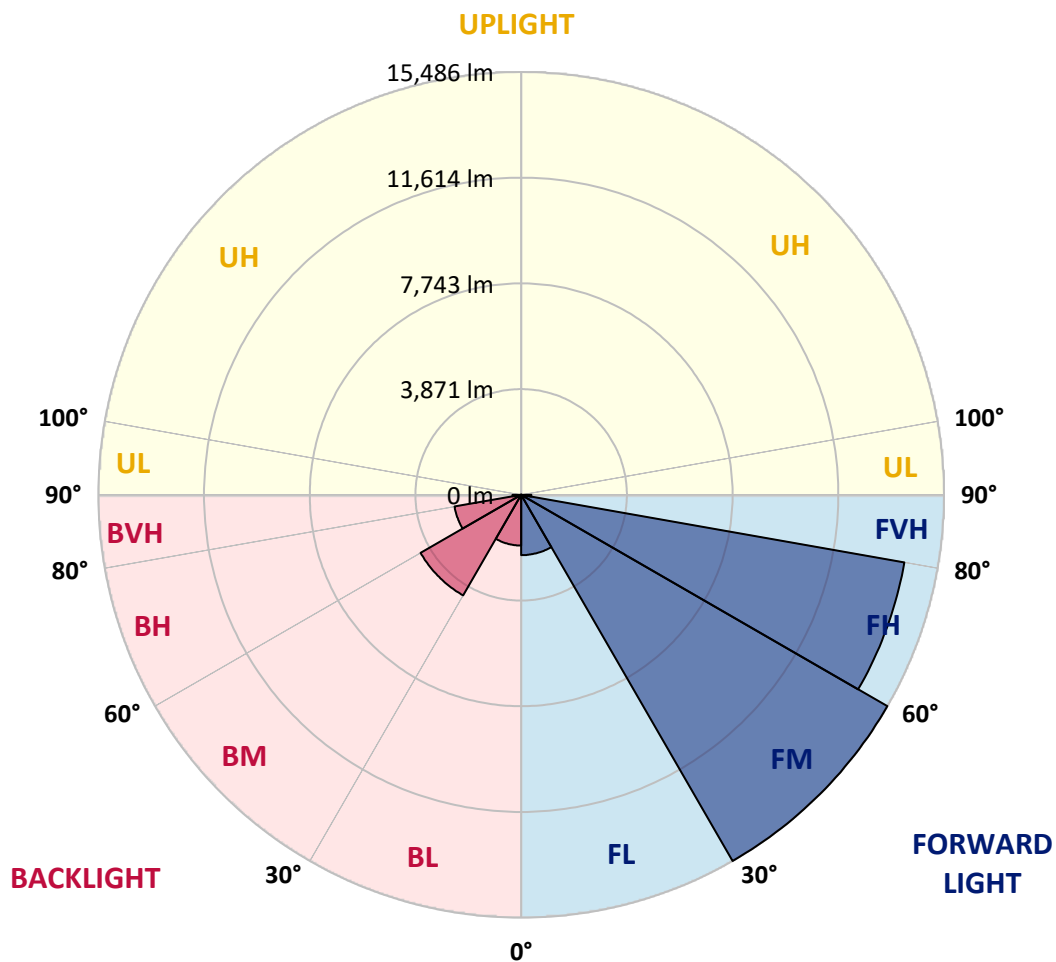
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2209.6	5.4			
FM (30°-60°)	15485.7	37.6			
FH (60°-80°)	14250.3	34.6			G5
FVH (80°-90°)	370.9	0.9			G3/500
BL (0°-30°)	1859.5	4.5	B3/2500		
BM (30°-60°)	4252.8	10.3	B3/5000		
BH (60°-80°)	2478.1	6.0	B3/2500		G3/2500
BVH (80°-90°)	314.3	0.8			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type III Short





REPORT NUMBER: P299209

CATALOG NUMBER: GLNA-AF-10-LED-E1-T3-7027-800

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5083.0	5083.0	5083.0	5083.0	5083.0	5083.0	5083.0	5083.0	5083.0	5083.0	5083.0
2.5°	5039.2	5041.2	5045.2	5061.1	5075.1	5071.1	5073.1	5065.1	5063.1	5051.2	5063.1
5°	4975.5	4981.5	4983.5	5009.4	5025.3	5029.3	5023.3	5013.3	5001.4	4989.4	4995.4
7.5°	4830.2	4846.1	4848.1	4883.9	4909.8	4943.6	4945.6	4947.6	4941.7	4933.7	4945.6
10°	4738.6	4742.6	4740.6	4766.5	4786.4	4824.2	4846.1	4883.9	4899.8	4903.8	4911.8
12.5°	4732.6	4728.6	4722.6	4722.6	4716.7	4732.6	4772.4	4826.2	4864.0	4876.0	4885.9
15°	4796.3	4794.3	4774.4	4744.5	4706.7	4694.8	4728.6	4788.4	4838.1	4864.0	4874.0
17.5°	4939.7	4927.7	4895.9	4828.2	4746.5	4714.7	4718.7	4768.4	4826.2	4860.0	4870.0
20°	5202.5	5202.5	5134.8	5007.4	4862.0	4786.4	4750.5	4780.4	4836.1	4881.9	4895.9
22.5°	5656.4	5660.4	5546.9	5337.9	5093.0	4931.7	4842.1	4836.1	4901.8	4953.6	4969.5
25°	6299.5	6283.6	6124.3	5825.7	5453.3	5186.6	5031.3	4995.4	5051.2	5108.9	5128.8
27.5°	7048.1	6990.4	6801.3	6440.9	5959.1	5568.8	5329.9	5272.2	5325.9	5391.6	5411.5
30°	7788.8	7729.1	7504.1	7109.9	6574.3	6080.5	5738.1	5644.5	5720.1	5813.7	5825.7
32.5°	8529.4	8529.4	8278.6	7818.7	7235.3	6691.7	6281.6	6170.1	6295.5	6409.0	6434.9
35°	9415.4	9419.4	9176.5	8623.0	7995.8	7420.5	6968.5	6886.9	7076.0	7155.6	7217.4
37.5°	10504.5	10526.4	10213.8	9544.8	8858.0	8252.7	7715.1	7603.6	7792.8	8009.8	8208.9
40°	11681.2	11709.1	11364.6	10540.3	9853.5	9220.3	8638.9	8437.9	8752.4	9166.6	9423.4
42.5°	12804.1	12947.5	12615.0	11766.8	11028.1	10373.1	9783.8	9491.1	9885.3	10510.5	10733.5
45°	14426.8	14530.3	13950.9	13182.4	12487.5	11754.9	10974.4	10665.8	11217.3	12005.7	12051.5
47.5°	15507.9	15430.2	15135.6	14657.7	14217.7	13532.8	12358.1	12019.7	12752.3	13680.1	13423.3
50°	16083.3	16107.2	16067.4	16095.2	16111.2	15681.1	14054.5	13590.6	14464.6	15585.5	14994.2
52.5°	16620.9	16461.6	16593.0	17246.0	18034.5	17875.2	15900.1	15416.3	16300.3	17700.0	16654.7
55°	16608.9	16366.0	16794.1	17946.9	19657.1	19840.3	17972.7	17415.3	18241.5	19967.7	18414.7
57.5°	16021.6	16033.5	16692.5	18201.7	20788.0	21687.9	20377.9	19541.6	20300.2	22265.3	20021.5
60°	15213.2	15322.7	16272.4	18159.9	21693.9	23203.1	23328.5	21833.3	22317.1	24353.9	21351.5
62.5°	13909.1	14024.6	15334.7	17725.9	21556.5	24662.5	25996.5	24433.5	24425.6	25620.2	21741.7
65°	11852.4	11818.6	13194.3	16103.2	20403.8	25741.6	28646.5	26681.4	26014.4	25640.1	20957.2
67.5°	8740.5	8589.2	9769.8	12264.5	16959.3	24533.1	30205.4	27852.1	26555.9	23953.7	18560.1
70°	4535.5	4384.2	5339.9	7161.6	11153.6	19147.4	28479.2	27246.8	25359.3	20079.2	14540.3
72.5°	1939.2	1913.3	2301.6	3141.8	5395.6	11044.1	22331.0	23583.4	21759.6	14960.4	9996.8
75°	1304.1	1296.1	1441.5	1712.3	2427.0	4481.7	13974.8	16740.3	15920.0	9276.1	5622.6
77.5°	1023.4	1013.4	1099.0	1230.4	1572.9	1768.0	6202.0	8987.4	8318.4	4037.7	2460.9
80°	800.4	792.4	846.2	917.9	1130.9	1115.0	2040.8	3575.8	2767.5	1547.0	1196.6
82.5°	631.1	631.1	674.9	676.9	802.4	760.6	1065.2	1574.9	1381.8	901.9	732.7
85°	577.4	577.4	623.2	505.7	523.6	479.8	661.0	933.8	876.0	370.3	318.6
87.5°	290.7	282.7	523.6	448.0	284.7	254.8	322.5	452.0	485.8	205.1	159.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P299209

CATALOG NUMBER: GLNA-AF-10-LED-E1-T3-7027-800

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	5083.0	5083.0	5083.0	5083.0	5083.0	5083.0	5083.0	5083.0	5083.0	5083.0
2.5°	5059.1	5057.1	5061.1	5063.1	5079.0	5100.9	5110.9	5124.8	5132.8	5128.8
5°	4999.4	5003.4	5019.3	5031.3	5059.1	5095.0	5114.9	5130.8	5144.7	5138.8
7.5°	4949.6	4959.6	4983.5	4993.4	5009.4	5019.3	5017.3	5023.3	5035.2	5021.3
10°	4921.7	4933.7	4951.6	4937.7	4899.8	4846.1	4796.3	4770.4	4778.4	4768.4
12.5°	4893.9	4909.8	4895.9	4830.2	4724.6	4655.0	4617.1	4621.1	4639.0	4643.0
15°	4877.9	4883.9	4824.2	4700.7	4593.2	4583.3	4603.2	4599.2	4601.2	4601.2
17.5°	4877.9	4862.0	4750.5	4627.1	4581.3	4563.4	4501.6	4424.0	4390.2	4378.2
20°	4903.8	4862.0	4726.6	4645.0	4545.4	4392.1	4228.9	4085.5	4021.8	4003.9
22.5°	4981.5	4909.8	4794.3	4653.0	4370.2	4113.4	3854.6	3683.3	3567.9	3548.0
25°	5138.8	5059.1	4927.7	4547.4	4091.5	3725.2	3430.5	3239.4	3123.9	3107.9
27.5°	5413.5	5361.8	4999.4	4314.5	3721.2	3328.9	3056.2	2908.8	2823.2	2817.3
30°	5827.7	5801.8	4963.6	3970.1	3265.2	2944.7	2813.3	2727.7	2664.0	2662.0
32.5°	6488.7	6279.6	4846.1	3550.0	2849.1	2671.9	2618.2	2566.4	2516.6	2516.6
35°	7338.8	6665.9	4623.1	3100.0	2596.3	2520.6	2452.9	2371.3	2305.6	2301.6
37.5°	8338.3	6904.8	4222.9	2737.6	2476.8	2419.1	2319.5	2198.1	2082.6	2062.7
40°	9347.7	6976.5	3659.5	2514.6	2401.1	2317.5	2196.1	2052.7	1941.2	1935.3
42.5°	10273.6	6839.1	3062.2	2361.3	2325.5	2214.0	2086.6	1959.1	1871.5	1869.5
45°	11050.0	6482.7	2560.4	2216.0	2245.8	2120.4	2006.9	1903.4	1835.7	1821.8
47.5°	11780.7	5979.0	2208.0	2062.7	2166.2	2068.6	1973.1	1875.5	1809.8	1799.9
50°	12628.9	5435.4	1961.1	1913.3	2096.5	2050.7	2001.0	1899.4	1789.9	1778.0
52.5°	13656.3	4965.5	1768.0	1781.9	2042.8	2074.6	2072.6	1967.1	1776.0	1760.0
55°	14803.1	4443.9	1622.7	1674.4	2020.9	2118.4	2090.5	2030.8	1787.9	1764.0
57.5°	15932.0	3834.7	1521.1	1592.8	1989.0	2114.4	2004.9	1919.3	1815.8	1781.9
60°	16778.1	3016.4	1443.5	1521.1	1919.3	2048.7	1911.4	1797.9	1809.8	1783.9
62.5°	16833.9	2331.5	1349.9	1459.4	1813.8	1983.0	1849.6	1744.1	1835.7	1811.8
65°	15844.4	1762.0	1260.3	1385.7	1700.3	1941.2	1789.9	1714.2	1889.5	1863.6
67.5°	13339.7	1417.6	1184.6	1310.1	1586.8	1853.6	1736.2	1686.4	1937.2	1891.4
70°	9630.5	1208.5	1111.0	1218.5	1485.3	1754.1	1688.4	1636.6	1807.8	1736.2
72.5°	5929.2	1047.3	1027.4	1097.0	1407.6	1650.5	1616.7	1543.0	1628.6	1570.9
75°	2960.6	907.9	933.8	977.6	1298.1	1533.1	1497.2	1423.6	1435.5	1423.6
77.5°	1417.6	776.5	824.3	858.1	1156.8	1399.7	1361.8	1286.2	1272.2	1274.2
80°	897.9	649.1	694.9	718.8	1033.3	1244.4	1206.5	1130.9	1290.2	1196.6
82.5°	561.5	527.6	539.6	583.4	899.9	1083.1	1033.3	965.6	1162.7	919.8
85°	310.6	368.3	384.3	422.1	692.9	905.9	856.1	770.5	690.9	678.9
87.5°	185.2	219.0	225.0	252.9	465.9	655.0	579.4	549.5	455.9	453.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)