

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: P300350

Luminaire Tested: **GLNA-AF-10-LED-E1-T4FT-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300350  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24295)  
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-T4FT-7027  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV Forward Throw OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 51322.9 lumens  
Efficiency: N/A  
Efficacy: 92.0 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G5

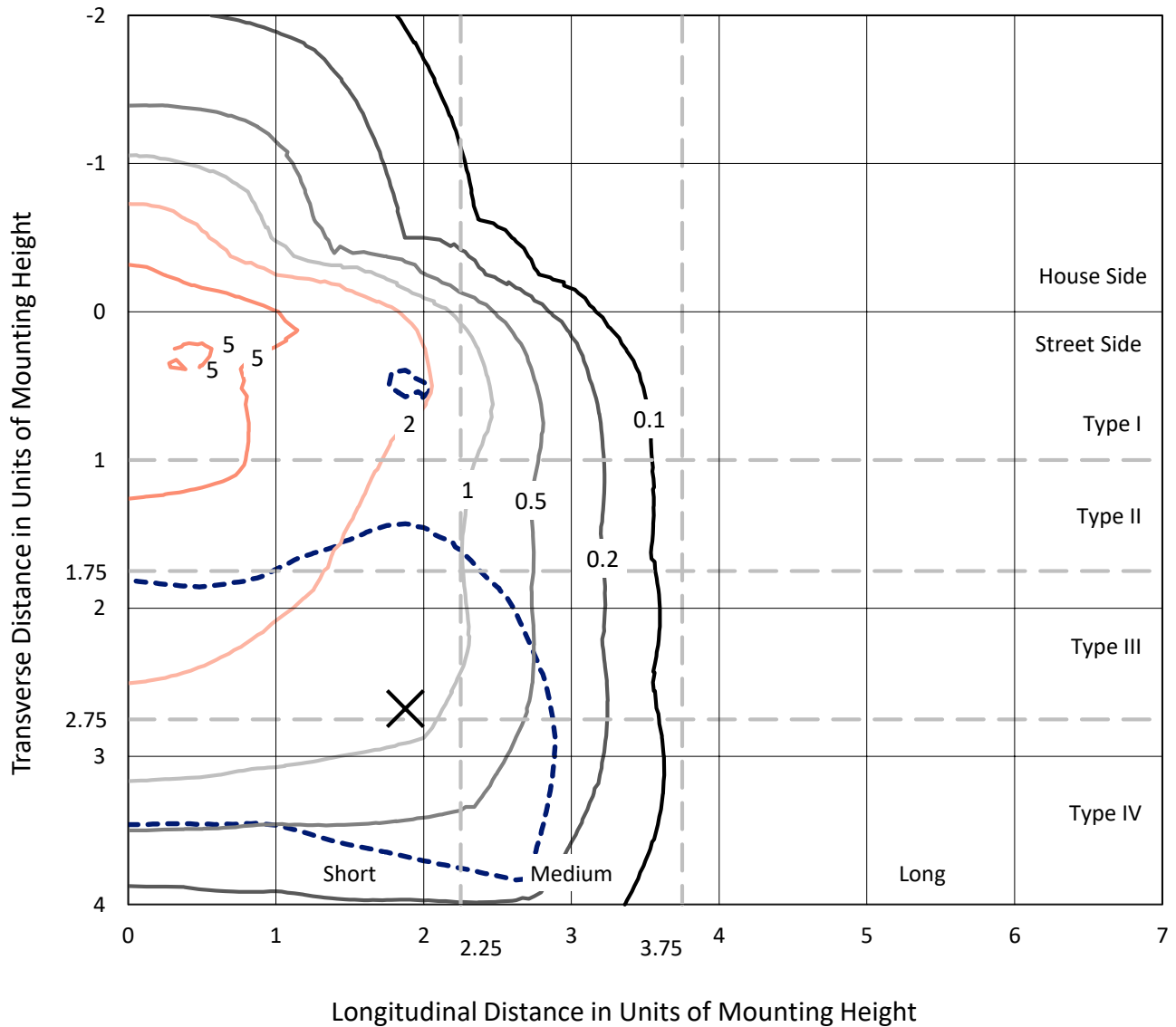
Input Watts (W): 558  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

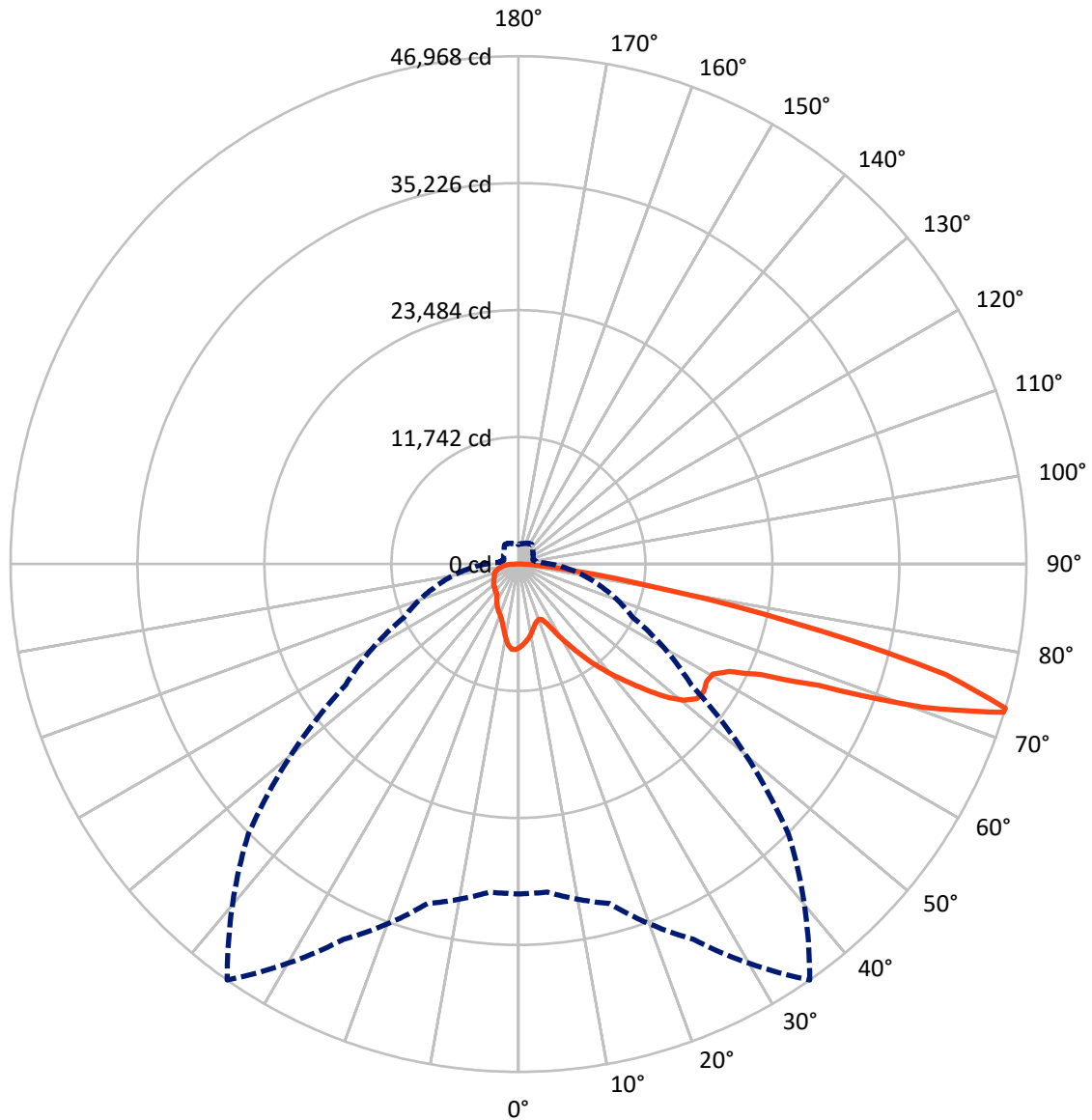
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.6 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral    - - - Horizontal Cone Through 73-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9788.7	0.0	9788.7
	% Fixture	19.1	0.0	19.1
<b>Street Side</b>	Lumens	41534.2	0.0	41534.2
	% Fixture	80.9	0.0	80.9
<b>Total</b>	Lumens	51322.9	0.0	51322.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	701.3	1.4
10°-20°	1750.2	3.4
20°-30°	2829.5	5.5
30°-40°	4744.7	9.2
40°-50°	7313.7	14.3
50°-60°	9812.1	19.1
60°-70°	13071.7	25.5
70°-80°	9969.7	19.4
80°-90°	1130.0	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°	51322.9	100.0
0°-180°	51322.9	100.0



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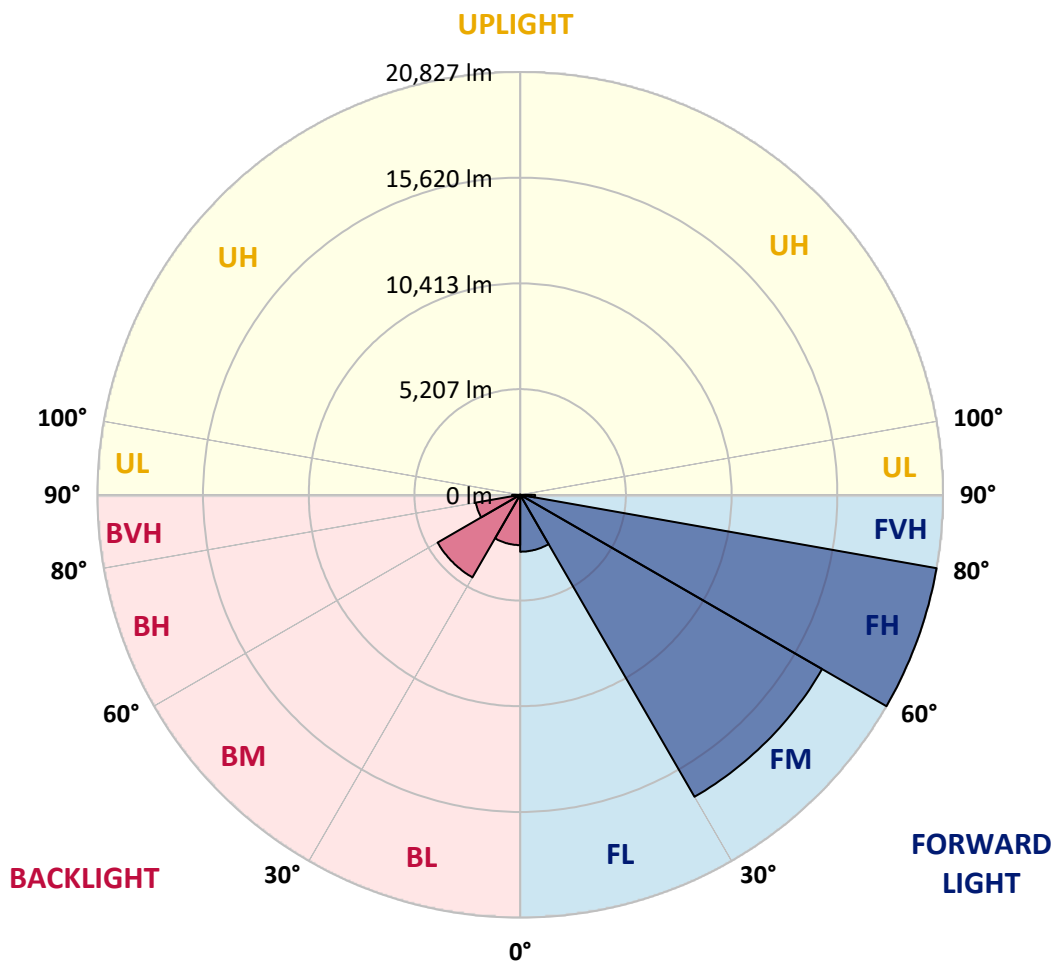
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2804.0	5.5			
FM	(30°-60°)	17173.0	33.5			
FH	(60°-80°)	20826.8	40.6			G5
FVH	(80°-90°)	730.4	1.4			G4/750
BL	(0°-30°)	2477.0	4.8	B3/2500		
BM	(30°-60°)	4697.5	9.2	B3/5000		
BH	(60°-80°)	2214.6	4.3	B3/2500		G3/2500
BVH	(80°-90°)	399.6	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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7746.2	7746.2	7746.2	7746.2	7746.2	7746.2	7746.2	7746.2	7746.2	7746.2	7746.2
2.5°	7440.6	7455.4	7438.1	7460.3	7497.3	7536.7	7563.8	7603.3	7647.6	7709.2	7724.0
5°	7090.6	7112.8	7112.8	7152.2	7223.7	7287.8	7347.0	7411.0	7504.7	7610.7	7652.6
7.5°	6706.2	6718.5	6740.7	6799.8	6903.3	6994.5	7078.3	7181.8	7310.0	7450.5	7524.4
10°	6242.8	6260.1	6294.6	6378.4	6518.8	6644.5	6765.3	6908.3	7070.9	7245.9	7339.6
12.5°	5915.0	5910.1	5924.9	5986.5	6109.7	6262.5	6437.5	6619.9	6819.5	7024.1	7137.5
15°	5804.1	5777.0	5720.3	5705.5	5772.1	5924.9	6127.0	6351.3	6590.3	6836.8	6977.3
17.5°	5873.1	5826.3	5671.0	5557.7	5547.8	5663.6	5878.1	6129.4	6405.5	6706.2	6881.1
20°	6306.9	6196.0	5814.0	5550.3	5459.1	5515.8	5703.1	5969.2	6294.6	6693.8	6918.1
22.5°	7344.5	7181.8	6371.0	5880.5	5572.4	5503.4	5643.9	5927.3	6306.9	6846.6	7132.5
25°	8855.3	8623.6	7327.2	6703.7	6067.8	5700.6	5732.6	6023.5	6481.9	7201.5	7546.6
27.5°	10048.1	9897.8	8576.8	7864.5	6969.9	6233.0	6021.0	6265.0	6839.2	7783.2	8135.6
30°	10757.9	10666.8	9912.6	9180.6	8120.8	7080.8	6573.1	6718.5	7398.7	8589.1	8879.9
32.5°	11581.1	11526.9	11157.2	10484.4	9363.0	8194.8	7448.0	7396.2	8147.9	9557.7	9690.8
35°	12433.9	12416.6	12199.7	11716.7	10696.3	9663.7	8608.8	8258.9	8963.7	10563.2	10479.4
37.5°	13227.5	13197.9	13072.2	12791.2	12091.3	11241.0	9791.8	9143.6	9843.6	11524.4	11152.3
40°	14689.0	14457.3	14026.0	13814.0	13501.0	12569.4	10730.8	9969.3	10755.5	12441.3	11733.9
42.5°	16470.9	16093.8	15290.3	14999.5	14955.1	13616.9	11371.6	10770.3	11674.8	13350.7	12305.7
45°	17873.2	17518.3	16825.8	16458.6	16621.2	14565.7	12014.9	11625.5	12621.2	14304.5	12894.7
47.5°	19369.2	18812.2	17895.4	18006.3	18361.2	15462.9	12670.5	12544.8	13658.8	15371.7	13626.7
50°	19423.5	18997.1	18595.4	19258.3	19810.4	16288.5	13491.2	13508.4	14928.0	16714.9	14600.2
52.5°	18297.1	18205.9	18844.3	19886.8	20682.9	16941.6	14425.3	14504.1	16552.2	18257.7	15669.9
55°	17902.8	17799.3	18536.2	19667.4	20801.2	17481.4	15438.2	15581.2	18516.5	19884.3	16712.4
57.5°	18864.0	18634.8	18684.1	19563.9	20512.8	18072.9	16542.3	16830.7	20650.8	21306.4	17382.8
60°	21550.4	21059.9	20128.3	20106.1	20668.1	18960.1	17819.0	18171.4	22869.0	21986.6	17121.5
62.5°	25318.8	24828.3	23083.4	21947.2	21863.4	20424.1	19386.5	19480.1	24150.5	21064.9	15526.9
65°	29397.7	28959.0	27009.5	25405.0	24631.1	22849.2	21207.8	20064.2	23731.6	18528.8	12737.0
67.5°	34349.0	33878.3	32202.4	30721.1	29976.8	26763.0	22486.9	19504.8	21072.3	14353.8	9156.0
70°	37811.8	37331.2	36670.7	37870.9	39692.3	32409.4	22652.1	17230.0	15738.9	9540.4	5510.8
72.5°	33294.2	33069.9	34275.1	39330.0	46916.0	35835.2	20475.8	12544.8	9141.2	5064.7	3189.2
73°	30504.3	30455.0	32510.4	38307.2	46967.7	35307.8	19522.0	11660.0	7839.9	4480.6	2915.6
75°	13774.6	14171.4	18676.7	29259.6	40806.3	29094.5	13740.1	6688.9	4428.9	3095.5	2200.9
77.5°	3309.9	3448.0	5843.5	13895.4	25769.8	17338.4	6225.6	3307.5	2831.8	2186.1	1606.9
80°	1409.7	1456.6	2250.2	5133.7	12133.2	6982.2	2868.8	2215.7	1959.4	1525.6	1126.3
82.5°	783.7	833.0	1276.7	2329.0	4897.1	2380.8	1749.9	1542.8	1289.0	919.3	732.0
85°	443.6	470.7	746.8	1301.3	2075.2	956.3	1047.5	1025.3	727.1	473.2	359.8
87.5°	209.5	226.7	359.8	603.8	813.3	374.6	532.4	586.6	455.9	288.4	187.3
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7746.2	7746.2	7746.2	7746.2	7746.2	7746.2	7746.2	7746.2	7746.2	7746.2
2.5°	7741.3	7785.6	7837.4	7864.5	7889.2	7918.7	7948.3	7948.3	7953.2	7955.7
5°	7687.1	7778.3	7859.6	7894.1	7901.5	7901.5	7894.1	7854.7	7820.2	7834.9
7.5°	7573.7	7706.8	7775.8	7763.5	7669.8	7561.4	7470.2	7359.3	7302.6	7292.7
10°	7411.0	7563.8	7576.2	7452.9	7221.3	6989.6	6797.3	6610.0	6521.3	6499.1
12.5°	7231.1	7371.6	7292.7	7038.9	6666.7	6329.1	6085.1	5895.3	5811.5	5789.3
15°	7085.7	7181.8	6982.2	6582.9	6114.7	5757.3	5555.2	5414.7	5355.6	5338.3
17.5°	7009.3	7029.0	6664.3	6124.5	5626.7	5328.4	5202.8	5136.2	5114.0	5101.7
20°	7046.3	6908.3	6361.1	5698.1	5227.4	5017.9	4988.3	4971.1	4966.2	4958.8
22.5°	7231.1	6871.3	6082.6	5293.9	4877.4	4786.2	4810.9	4808.4	4803.5	4798.6
25°	7561.4	6903.3	5811.5	4909.5	4584.1	4564.4	4608.8	4608.8	4589.1	4589.1
27.5°	7997.6	6969.9	5508.4	4544.7	4318.0	4320.4	4354.9	4345.1	4322.9	4308.1
30°	8530.0	7011.8	5153.5	4216.9	4069.0	4059.2	4069.0	4027.1	3960.6	3955.7
32.5°	9074.6	6960.0	4741.9	3926.1	3805.3	3783.1	3775.8	3716.6	3640.2	3618.0
35°	9567.5	6770.2	4322.9	3694.4	3553.9	3504.7	3539.2	3519.4	3450.4	3433.2
37.5°	9927.4	6417.8	3945.8	3489.9	3374.0	3361.7	3383.9	3391.3	3309.9	3292.7
40°	10168.9	5939.7	3623.0	3317.3	3339.5	3292.7	3218.8	3167.0	3142.4	3135.0
42.5°	10363.6	5441.8	3351.8	3236.0	3346.9	3211.4	3051.2	2967.4	3011.7	3031.4
45°	10587.9	4956.3	3125.1	3135.0	3309.9	3117.7	2935.3	2854.0	2871.3	2876.2
47.5°	10896.0	4364.8	2881.1	2972.3	3186.7	3053.6	2863.9	2748.0	2666.7	2629.7
50°	11322.3	3664.8	2627.3	2789.9	3066.0	3006.8	2753.0	2629.7	2479.4	2444.9
52.5°	11618.1	3011.7	2417.8	2637.1	2957.5	2913.1	2664.2	2504.0	2346.3	2316.7
55°	11457.9	2501.6	2235.4	2467.1	2814.6	2797.3	2590.3	2375.9	2252.6	2228.0
57.5°	10656.9	2178.7	2094.9	2306.9	2639.6	2698.7	2491.7	2267.4	2178.7	2161.4
60°	9128.9	1976.6	2006.2	2198.4	2496.6	2600.1	2393.1	2208.3	2149.1	2136.8
62.5°	7083.2	1841.1	1939.6	2119.5	2385.7	2531.1	2338.9	2200.9	2178.7	2163.9
65°	5074.6	1732.6	1868.2	2040.7	2284.7	2467.1	2319.2	2191.0	2196.0	2183.6
67.5°	3448.0	1636.5	1781.9	1952.0	2186.1	2410.4	2292.1	2156.5	2218.1	2203.3
70°	2412.8	1542.8	1680.9	1838.6	2062.9	2331.5	2242.8	2104.8	2099.8	2040.7
72.5°	1882.9	1419.6	1542.8	1680.9	1905.1	2220.6	2144.2	1988.9	1907.6	1846.0
73°	1796.7	1390.0	1508.3	1646.3	1870.6	2193.5	2117.1	1956.9	1865.7	1809.0
75°	1486.1	1261.9	1370.3	1493.5	1722.8	2065.3	1984.0	1811.5	1695.6	1661.1
77.5°	1168.2	1079.5	1183.0	1293.9	1518.2	1878.0	1786.8	1621.7	1557.6	1528.0
80°	865.1	894.6	985.8	1084.4	1316.1	1678.4	1597.1	1431.9	1717.8	1646.3
82.5°	608.8	677.8	761.6	850.3	1104.1	1483.7	1385.1	1215.0	1256.9	1045.0
85°	359.8	443.6	522.5	598.9	796.1	1229.8	1143.6	968.6	793.6	756.6
87.5°	209.5	246.5	268.6	347.5	547.1	926.7	805.9	717.2	411.6	278.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)