

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: P299926

Luminaire Tested: **GLNA-AF-09-LED-E1-SL3-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299926
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
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-SL3-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42845.8 lumens
Efficiency: N/A
Efficacy: 114.6 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G5

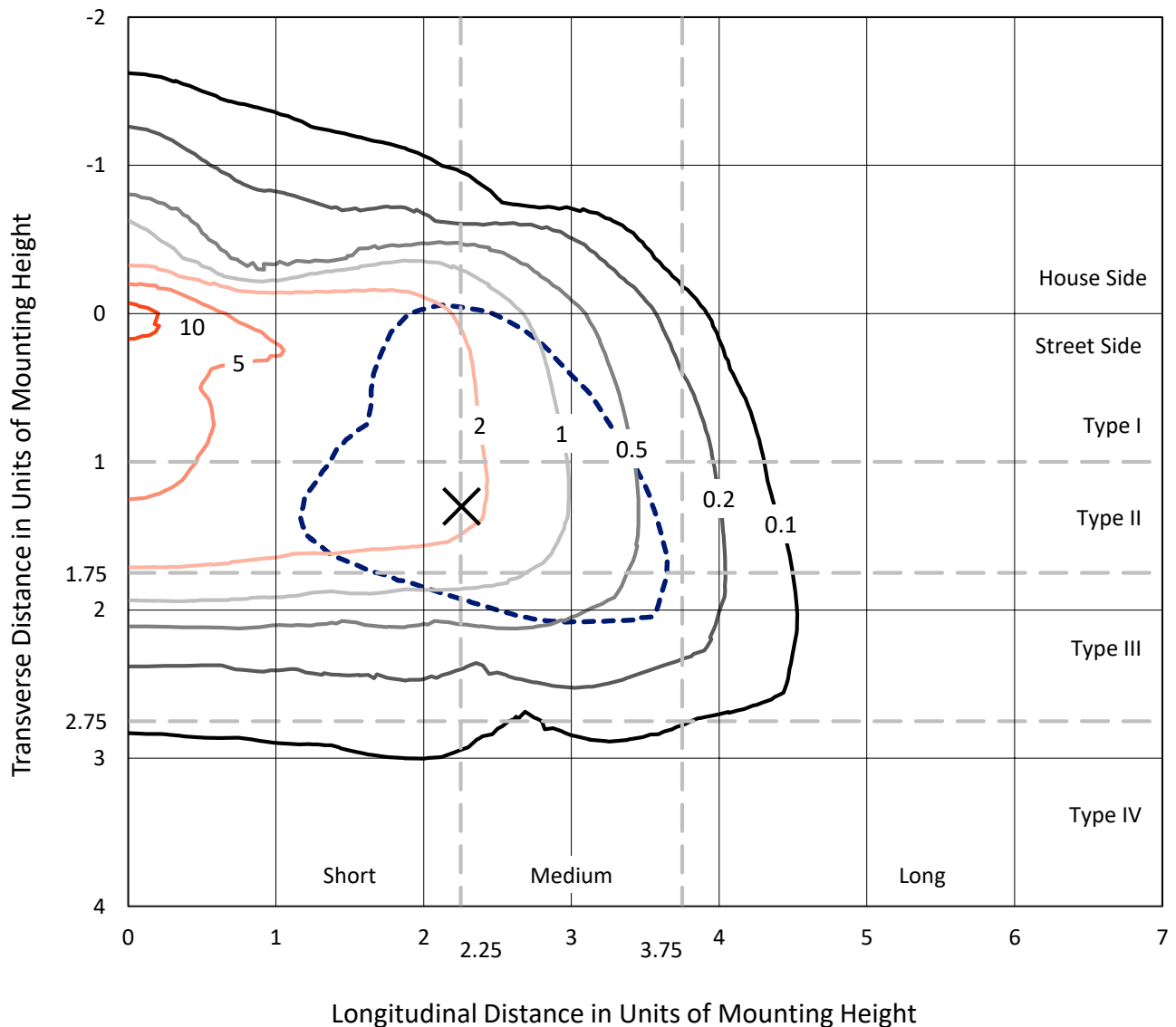
Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

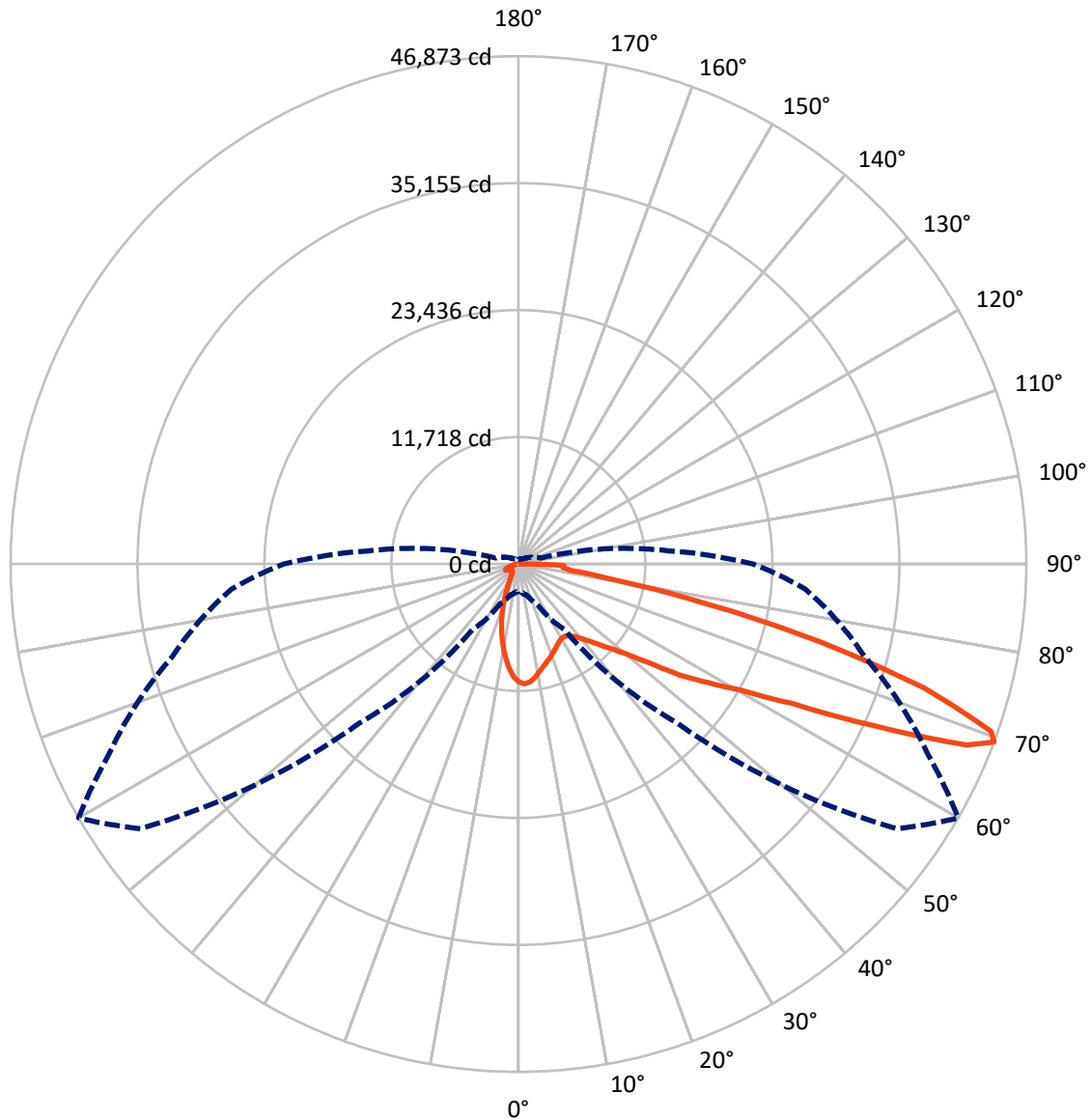
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.1 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6095.6	0.0	6095.6
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	36750.2	0.0	36750.2
	% Fixture	85.8	0.0	85.8
Total	Lumens	42845.8	0.0	42845.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	923.1	2.2
10°-20°	1966.8	4.6
20°-30°	2506.1	5.8
30°-40°	3445.2	8.0
40°-50°	5590.2	13.0
50°-60°	8965.2	20.9
60°-70°	11932.0	27.8
70°-80°	6442.3	15.0
80°-90°	1074.9	2.5
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°	42845.8	100.0
0°-180°	42845.8	100.0

Coefficient of Utilization



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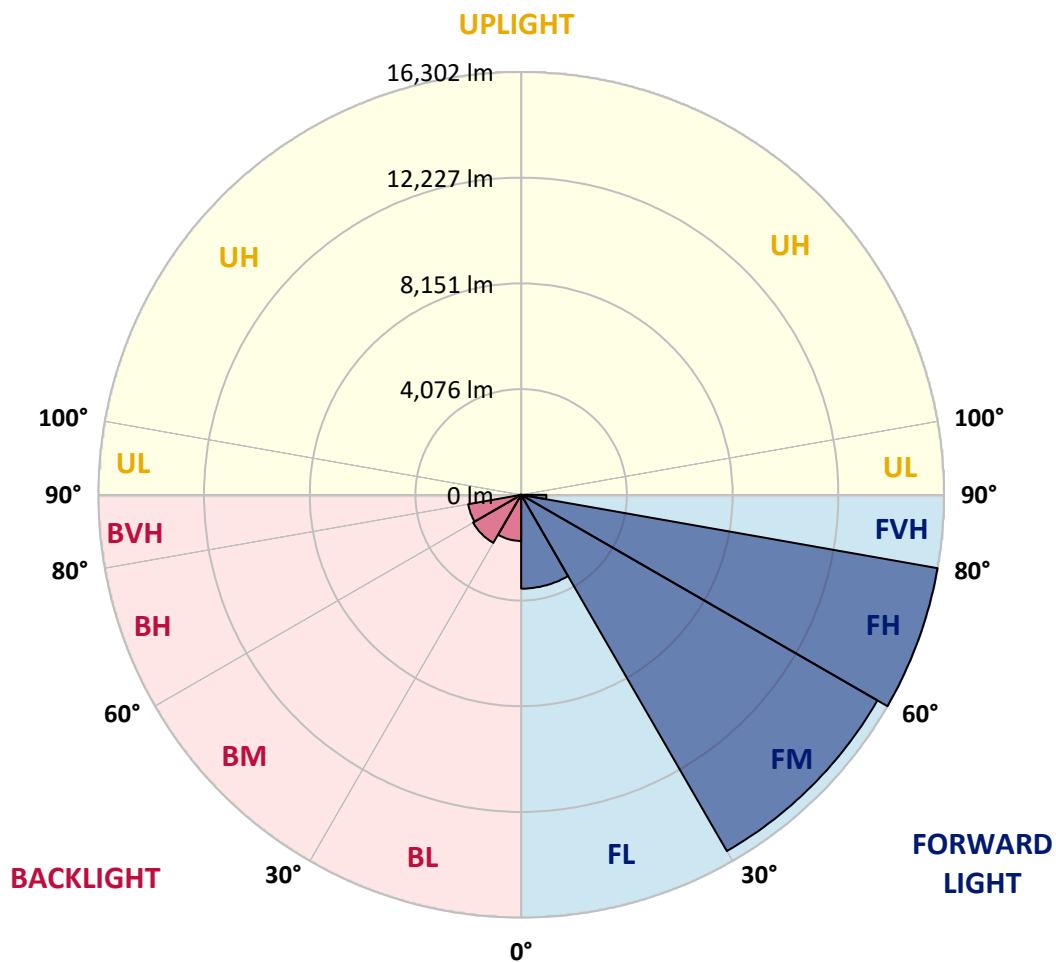
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3617.7	8.4			
FM	(30°-60°)	15859.0	37.0			
FH	(60°-80°)	16302.0	38.0			G5
FVH	(80°-90°)	971.4	2.3			G5
BL	(0°-30°)	1778.3	4.2	B3/2500		
BM	(30°-60°)	2141.5	5.0	B2/2500		
BH	(60°-80°)	2072.3	4.8	B3/2500		G3/2500
BVH	(80°-90°)	103.5	0.2			G2/225
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 Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	10917.8	10917.8	10917.8	10917.8	10917.8	10917.8	10917.8	10917.8	10917.8	10917.8	10917.8
2.5°	11141.3	11166.1	11155.8	11149.6	11168.2	11139.2	11079.2	11060.6	11031.6	10963.3	10847.4
5°	10723.2	10797.7	10793.6	10849.5	10942.6	10967.4	10940.5	10944.7	10890.9	10806.0	10613.5
7.5°	10000.9	10031.9	10048.5	10170.6	10340.3	10476.9	10592.8	10630.1	10605.2	10532.8	10284.4
10°	9255.8	9280.6	9319.9	9462.8	9678.0	9866.3	10085.7	10212.0	10265.8	10253.4	9976.0
12.5°	8616.2	8641.1	8692.8	8854.3	9110.9	9342.7	9661.4	9818.7	9947.1	10023.6	9725.6
15°	8042.9	8096.7	8146.4	8332.7	8620.4	8924.6	9284.8	9483.5	9682.1	9853.9	9504.1
17.5°	7595.9	7649.7	7678.7	7848.4	8154.7	8527.2	8949.5	9183.3	9431.7	9713.2	9284.8
20°	7337.2	7362.0	7349.6	7444.8	7720.1	8115.4	8616.2	8887.4	9187.5	9580.7	9065.4
22.5°	7264.7	7266.8	7221.2	7210.9	7388.9	7722.1	8260.2	8589.3	8957.7	9493.8	8877.0
25°	7440.6	7434.4	7310.2	7208.8	7227.5	7422.0	7916.7	8299.6	8765.3	9475.2	8732.1
27.5°	7831.8	7850.4	7666.2	7475.8	7287.5	7281.3	7655.9	8059.5	8608.0	9560.0	8670.1
30°	8380.3	8411.3	8214.7	7972.6	7618.6	7326.8	7554.5	7916.7	8510.7	9736.0	8659.7
32.5°	8980.5	9013.6	8864.6	8610.0	8146.4	7608.3	7624.8	7929.1	8506.5	9982.3	8730.1
35°	9620.1	9657.3	9580.7	9365.5	8850.1	8127.8	7893.9	8129.9	8641.1	10358.9	8918.4
37.5°	10334.1	10392.1	10412.8	10207.9	9657.3	8812.9	8334.8	8510.7	8945.3	10882.6	9264.1
40°	11362.8	11443.5	11437.3	11143.4	10582.5	9738.0	9015.7	9061.2	9419.3	11582.1	9816.7
42.5°	13333.1	13349.7	12834.3	12194.8	11600.8	10710.8	9818.7	9781.5	10073.3	12468.0	10630.1
45°	15839.6	15771.3	14624.6	13389.0	12664.6	11828.4	10864.0	10681.8	10903.3	13548.4	11648.4
47.5°	17919.6	17762.3	16313.5	14608.1	13790.5	13043.4	12091.3	11772.6	11894.7	14773.7	12964.7
50°	18642.0	18524.0	17323.5	15622.2	14856.4	14525.3	13602.2	13151.0	13184.1	16234.9	14506.7
52.5°	18486.7	18470.2	17669.2	16290.8	15854.0	16081.7	15742.3	15131.7	14808.8	17857.5	16170.7
55°	18120.4	18155.6	17865.8	17069.0	16994.5	17584.3	18538.5	18087.3	17083.5	19494.7	17890.7
57.5°	16847.5	16938.6	17576.1	18047.9	18830.3	19707.9	20790.3	20662.0	19531.9	21264.3	19935.5
60°	13573.2	13784.3	15493.9	17857.5	20720.0	23464.4	23948.7	23650.7	22057.0	23460.3	22636.5
62.5°	9510.4	9729.7	11762.2	15460.8	20409.5	27707.3	29594.9	28309.6	25683.1	26695.2	26132.3
65°	5091.5	5197.1	6749.4	10727.4	17230.4	28582.8	37846.9	35891.0	31424.5	30683.6	29123.0
67.5°	2808.6	2866.6	3460.6	5416.5	11035.7	25169.9	43104.0	44581.7	38600.3	33339.0	28578.7
69°	2539.5	2593.4	2982.5	4102.2	7384.8	20811.0	42590.7	46872.9	41746.2	33076.2	26566.9
70°	2483.7	2533.3	2883.1	3781.4	5977.3	17153.8	40870.7	46287.2	42495.5	32134.5	24811.8
72.5°	2235.3	2289.1	2628.5	3396.4	5108.1	8552.1	32374.5	39136.3	38581.6	27862.6	18820.0
75°	2084.2	2133.9	2709.3	3326.0	4890.7	5412.3	21342.9	28843.6	28361.4	19490.5	10147.8
77.5°	892.0	887.9	1256.3	2814.8	4963.2	5240.5	11468.3	18019.0	16439.8	8330.6	2914.2
80°	596.1	585.7	596.1	827.9	4551.3	5269.5	6008.4	9146.1	6908.7	2123.5	1436.4
82.5°	513.3	505.0	523.6	505.0	1599.9	6014.6	5108.1	4863.8	3284.6	1206.6	712.0
85°	345.6	331.2	451.2	453.3	755.4	5344.0	5753.8	4108.4	2657.5	716.1	351.9
87.5°	165.6	161.4	262.9	320.8	442.9	2171.1	6455.5	4209.8	2680.3	366.3	167.6
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°	10917.8	10917.8	10917.8	10917.8	10917.8	10917.8	10917.8	10917.8	10917.8	10917.8	10917.8
2.5°	10812.2	10727.4	10644.6	10545.2	10441.7	10325.8	10267.9	10209.9	10195.4	10178.9	10120.9
5°	10514.2	10394.1	10187.2	9959.5	9719.4	9485.5	9307.5	9195.8	9110.9	9067.4	8990.9
7.5°	10129.2	9953.3	9591.1	9197.8	8794.2	8425.8	8107.1	7906.3	7715.9	7626.9	7525.5
10°	9762.9	9500.0	8937.0	8357.5	7778.0	7221.2	6697.6	6327.1	5998.0	5813.8	5683.4
12.5°	9448.3	9088.1	8307.9	7523.4	6728.7	5936.0	5151.5	4534.8	4019.4	3748.3	3609.6
15°	9141.9	8707.3	7709.7	6714.2	5693.8	4615.5	3584.8	2885.2	2458.8	2289.1	2231.2
17.5°	8864.6	8307.9	7109.5	5898.7	4625.8	3321.9	2409.2	2024.2	1860.7	1804.8	1786.2
20°	8564.5	7904.3	6486.5	5046.0	3512.3	2322.2	1881.4	1711.7	1645.4	1628.9	1620.6
22.5°	8274.7	7506.9	5890.4	4133.2	2523.0	1792.4	1616.5	1546.1	1535.7	1550.2	1550.2
25°	8028.4	7150.9	5246.7	3179.1	1852.4	1508.8	1446.7	1430.2	1469.5	1523.3	1533.7
27.5°	7844.2	6859.0	4561.7	2347.1	1475.7	1312.2	1310.1	1337.0	1434.3	1537.8	1558.5
30°	7718.0	6581.7	3829.0	1693.0	1237.7	1154.9	1188.0	1246.0	1388.8	1535.7	1575.1
32.5°	7653.8	6376.8	3065.3	1310.1	1059.7	1014.2	1070.0	1140.4	1281.2	1417.8	1469.5
35°	7703.5	6225.7	2345.0	1092.8	935.5	900.3	958.3	1026.6	1109.4	1167.3	1206.6
37.5°	7889.8	6165.7	1769.6	979.0	850.7	817.5	863.1	902.4	935.5	952.1	970.7
40°	8291.3	6229.9	1417.8	921.0	803.1	761.7	780.3	794.8	815.5	832.0	840.3
42.5°	8883.2	6422.3	1270.8	898.3	778.2	718.2	714.1	720.3	747.2	778.2	784.4
45°	9711.1	6761.8	1260.5	912.7	765.8	683.0	664.4	672.7	714.1	761.7	769.9
47.5°	10768.7	7279.2	1343.2	956.2	776.1	664.4	633.3	643.7	695.4	759.6	769.9
50°	12049.9	8001.5	1481.9	1020.4	821.7	668.5	623.0	629.2	683.0	753.4	763.7
52.5°	13562.9	9026.0	1633.0	1082.5	869.3	695.4	631.3	616.8	666.4	728.5	741.0
55°	15245.5	10340.3	1788.2	1138.3	894.1	728.5	647.8	600.2	635.4	687.1	697.5
57.5°	17311.1	12178.2	2057.3	1192.2	910.7	751.3	664.4	583.7	596.1	633.3	641.6
60°	20107.3	14777.8	2531.3	1281.2	947.9	759.6	662.3	569.2	556.8	577.5	581.6
62.5°	23458.2	17600.9	2926.6	1392.9	1010.0	765.8	649.9	558.8	523.6	523.6	527.8
65°	25447.2	18356.3	2707.2	1486.1	1061.8	759.6	635.4	548.5	498.8	476.0	478.1
67.5°	23760.4	16143.8	2320.2	1504.7	1059.7	730.6	612.6	529.8	474.0	438.8	436.7
69°	21647.2	13929.2	2146.3	1455.0	1010.0	693.4	583.7	509.2	455.3	418.1	416.0
70°	19943.8	12577.7	2032.5	1401.2	956.2	666.4	560.9	490.5	440.9	405.7	401.5
72.5°	14500.5	8241.6	1736.5	1204.6	788.6	558.8	484.3	430.5	393.2	372.5	368.4
75°	7246.1	3930.4	1409.5	976.9	604.4	447.1	397.4	360.1	341.5	337.4	335.3
77.5°	2380.2	1800.7	1008.0	728.5	449.1	349.8	320.8	293.9	289.8	302.2	298.0
80°	1308.1	1047.3	639.5	482.2	306.3	256.6	252.5	238.0	244.2	264.9	260.8
82.5°	666.4	544.3	395.3	289.8	207.0	184.2	200.8	192.5	200.8	219.4	217.3
85°	329.1	298.0	250.4	175.9	136.6	118.0	142.8	149.0	153.2	167.6	167.6
87.5°	190.4	175.9	132.5	82.8	68.3	62.1	82.8	80.7	95.2	103.5	101.4
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)