

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: P299995

Luminaire Tested: **GLNA-AF-10-LED-E1-SL3-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299995  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)  
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-SL3-7030-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

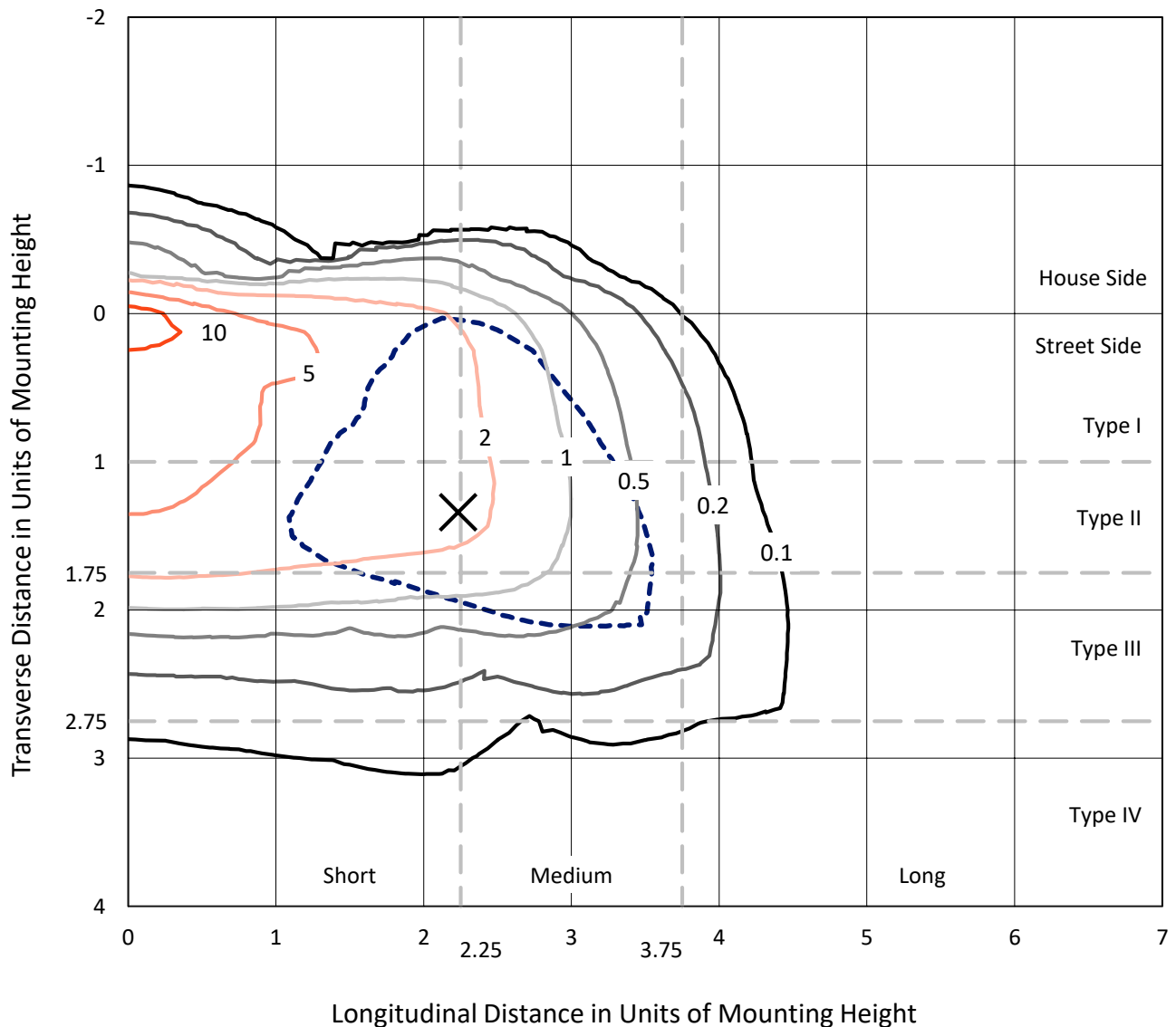
Lumens per Lamp: N/A  
Luminaire Lumens: 44225.8 lumens  
Efficiency: N/A  
Efficacy: 79.3 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G5  
  
Input Watts (W): 558  
Input Voltage (V): NR  
Input Current (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

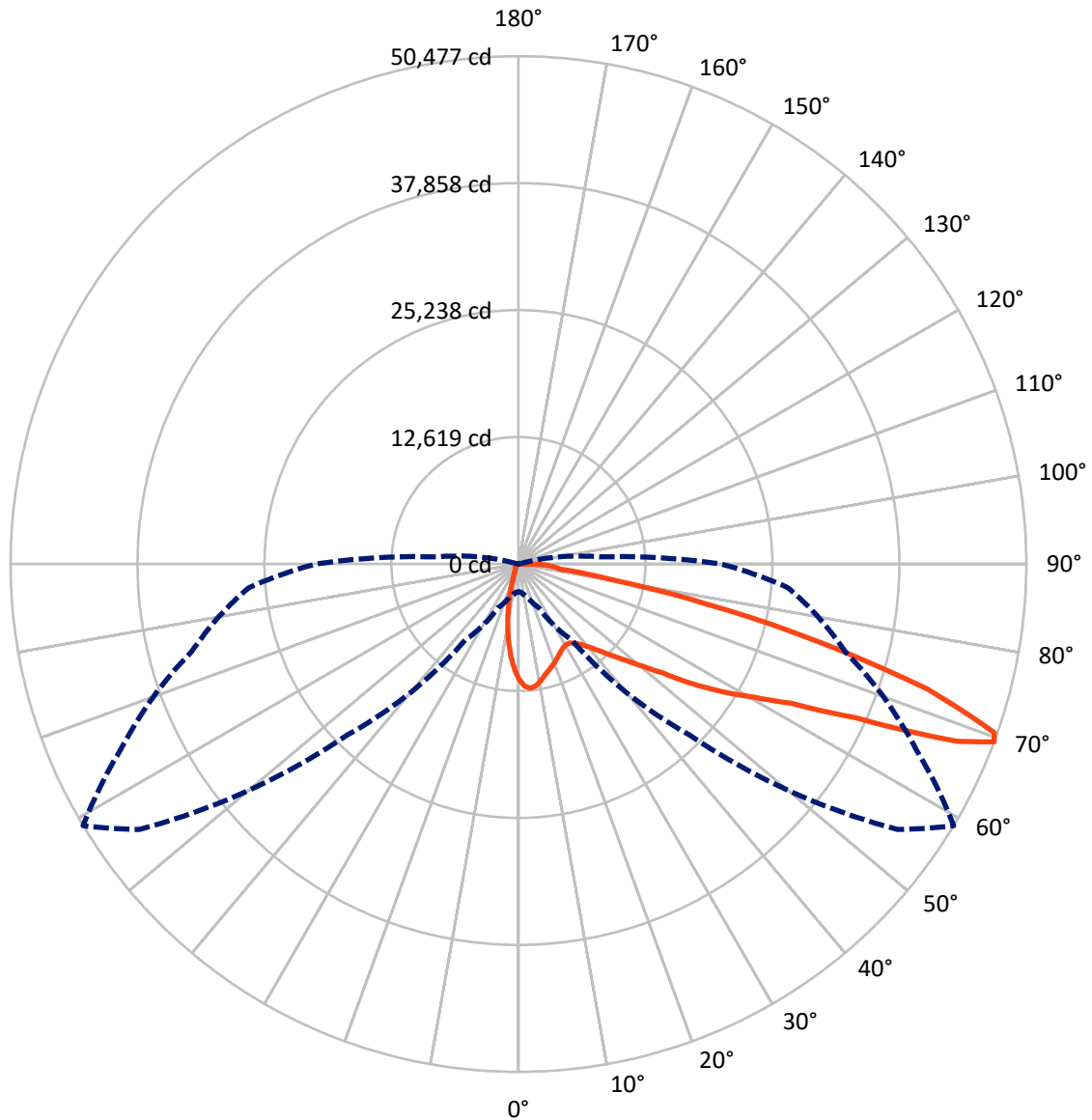
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.9 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3601.6	0.0	3601.6
	% Fixture	8.1	0.0	8.1
<b>Street Side</b>	Lumens	40624.2	0.0	40624.2
	% Fixture	91.9	0.0	91.9
<b>Total</b>	Lumens	44225.8	0.0	44225.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	934.4	2.1
10°-20°	1930.7	4.4
20°-30°	2598.0	5.9
30°-40°	3772.1	8.5
40°-50°	6280.8	14.2
50°-60°	9798.0	22.2
60°-70°	12124.3	27.4
70°-80°	6144.5	13.9
80°-90°	642.9	1.5
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°	44225.8	100.0
0°-180°	44225.8	100.0



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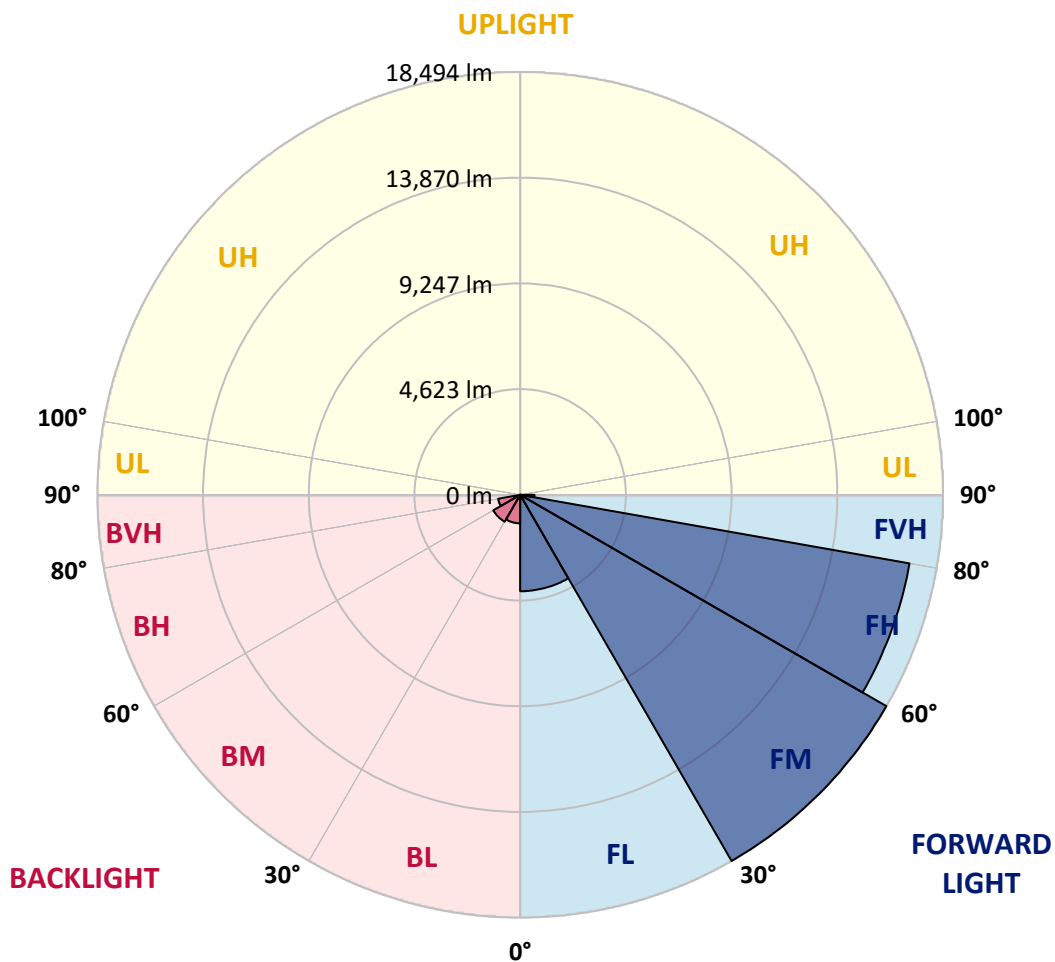
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4216.5	9.5			
FM	(30°-60°)	18493.9	41.8			
FH	(60°-80°)	17290.7	39.1			G5
FVH	(80°-90°)	623.1	1.4			G4/750
BL	(0°-30°)	1246.6	2.8	B3/2500		
BM	(30°-60°)	1357.0	3.1	B2/2500		
BH	(60°-80°)	978.1	2.2	B2/1000		G2/1000
BVH	(80°-90°)	19.8	0.0			G1/100
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





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	11511.1	11511.1	11511.1	11511.1	11511.1	11511.1	11511.1	11511.1	11511.1	11511.1	11511.1
2.5°	12616.6	12612.0	12556.8	12531.8	12486.3	12391.7	12244.1	12166.8	12041.9	11823.8	11531.6
5°	12501.5	12562.1	12593.9	12596.9	12629.4	12593.9	12461.4	12397.0	12224.4	11873.8	11349.1
7.5°	11721.6	11743.6	11836.7	11916.2	12071.4	12219.1	12266.8	12238.8	12136.5	11761.7	11063.6
10°	10886.5	10908.4	11019.0	11123.5	11333.9	11561.1	11801.1	11851.8	11894.2	11601.2	10788.8
12.5°	10165.6	10188.4	10301.2	10438.2	10683.5	10963.7	11336.2	11418.7	11606.5	11449.0	10568.5
15°	9545.5	9555.4	9665.9	9835.5	10128.5	10488.2	10911.5	11044.0	11331.7	11341.5	10376.1
17.5°	9017.8	9042.8	9110.9	9273.0	9593.2	10038.4	10531.4	10721.4	11058.3	11251.4	10188.4
20°	8695.2	8720.2	8718.0	8808.1	9095.8	9570.5	10151.3	10378.4	10788.8	11159.0	10021.0
22.5°	8633.2	8633.2	8568.0	8555.2	8725.5	9123.0	9756.0	10033.1	10545.7	11118.9	9903.7
25°	8855.8	8845.2	8683.1	8550.6	8558.2	8795.2	9372.9	9703.0	10341.3	11146.2	9840.8
27.5°	9326.0	9313.1	9107.9	8855.8	8652.8	8650.6	9082.9	9438.0	10178.5	11276.4	9865.8
30°	9975.6	9971.1	9748.5	9430.4	9063.2	8725.5	8983.0	9305.5	10073.3	11511.1	9923.4
32.5°	10685.8	10678.2	10510.9	10176.2	9710.6	9063.2	9088.2	9358.5	10103.6	11823.8	10063.4
35°	11439.2	11426.3	11353.6	11061.4	10548.8	9685.6	9433.5	9643.2	10293.6	12291.8	10338.3
37.5°	12253.9	12266.8	12319.0	12038.9	11501.3	10558.6	10011.2	10153.5	10676.0	12927.0	10785.8
40°	13457.0	13454.8	13472.2	13104.2	12587.0	11626.2	10818.3	10863.7	11316.5	13769.7	11466.4
42.5°	15639.9	15487.7	15025.1	14274.8	13754.6	12846.8	11836.7	11789.0	12099.4	14812.3	12419.0
45°	18573.9	18248.3	17048.2	15610.4	14944.8	14222.5	13089.0	12936.9	13134.5	16065.4	13594.8
47.5°	21096.8	20759.1	19061.5	17000.5	16207.8	15527.9	14557.2	14282.3	14347.4	17468.5	15084.9
50°	21954.6	21789.6	20307.1	18211.2	17430.6	17170.9	16260.8	15925.4	15833.0	19091.1	16812.8
52.5°	21657.1	21645.0	20656.9	18996.4	18551.2	18871.5	18403.6	18015.9	17675.9	20802.2	18570.9
55°	21179.3	21242.2	20799.2	19683.9	19668.8	20424.4	21334.5	21012.0	20026.9	22660.3	20086.7
57.5°	19861.9	20129.1	20719.7	20984.7	21599.5	22372.6	23775.6	23965.7	22800.4	24083.0	21344.4
60°	16115.4	16703.0	18633.7	21171.7	24088.3	26013.8	26721.7	26883.8	25075.7	25265.7	23042.7
62.5°	11439.2	12038.9	14487.5	18781.4	24125.4	30797.5	31110.2	30472.7	27581.9	27019.3	25971.4
65°	6071.7	6535.1	8535.5	13557.0	20917.3	31908.3	38785.6	36885.1	32002.9	30467.4	29754.9
67.5°	3105.9	3246.0	4041.7	6635.0	14380.0	28342.1	45665.2	47003.1	39623.0	33889.0	29572.4
69°	2748.5	2831.0	3358.8	4796.6	9207.8	24005.8	46000.6	50476.9	43612.5	33603.6	26873.9
70°	2660.7	2733.4	3213.4	4341.6	7197.6	20131.4	44717.2	50171.8	44632.4	32518.6	24858.4
72.5°	2258.6	2320.7	2861.3	3836.5	5849.8	9993.0	36324.8	42514.6	40050.8	27089.0	17993.2
75°	1510.5	1715.7	2746.2	3596.5	5441.7	5677.2	23948.3	30722.6	28539.7	18271.1	9372.9
77.5°	362.7	389.9	775.3	2861.3	4976.8	4996.5	12316.7	19098.6	15577.8	6512.3	2215.5
80°	195.3	187.8	217.3	567.9	4633.8	4689.1	5544.7	9270.7	5562.1	1080.5	729.9
82.5°	137.8	130.2	140.1	237.7	1458.3	4271.1	4011.4	4196.2	2305.6	414.9	327.9
85°	50.0	47.7	77.2	215.0	457.3	2455.5	4121.2	3461.0	1867.9	190.0	240.0
87.5°	17.4	15.1	30.3	117.4	140.1	1045.6	2543.3	2616.0	735.2	115.1	112.8
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°	11511.1	11511.1	11511.1	11511.1	11511.1	11511.1	11511.1	11511.1	11511.1	11511.1	11511.1
2.5°	11408.9	11253.7	10969.0	10676.0	10405.7	10080.8	9918.1	9758.3	9690.9	9665.9	9548.6
5°	11078.8	10816.0	10211.1	9603.1	9042.8	8447.6	8055.4	7740.5	7555.0	7464.9	7322.5
7.5°	10656.3	10226.2	9307.8	8370.4	7497.4	6637.3	5999.7	5509.1	5171.4	5009.4	4861.7
10°	10245.9	9673.5	8368.1	7090.1	5904.3	4764.1	3883.5	3246.0	2838.6	2650.8	2531.2
12.5°	9878.7	9135.9	7460.3	5842.3	4353.7	3018.8	2123.1	1615.8	1362.9	1275.1	1232.7
15°	9550.8	8640.7	6602.4	4656.5	2948.4	1725.6	1160.7	988.1	948.0	948.0	942.7
17.5°	9240.4	8155.4	5774.1	3543.5	1850.5	1055.5	882.8	860.1	860.1	870.0	870.0
20°	8942.8	7692.8	4973.8	2543.3	1165.3	837.4	798.0	792.7	798.0	810.2	810.2
22.5°	8687.7	7272.5	4226.5	1745.3	865.4	754.9	735.2	727.6	729.9	737.5	742.8
25°	8497.6	6917.4	3521.6	1182.7	745.0	687.5	665.5	652.7	642.8	642.8	647.4
27.5°	8378.0	6617.6	2838.6	860.1	670.1	625.4	589.8	570.1	547.4	535.3	539.9
30°	8290.2	6332.1	2198.0	702.6	600.4	555.0	510.3	477.8	445.2	430.1	435.4
32.5°	8257.6	6102.0	1643.0	620.1	537.6	487.6	432.3	389.9	355.1	342.2	345.3
35°	8345.4	5919.5	1203.1	560.3	487.6	424.8	362.7	315.0	287.7	280.1	282.4
37.5°	8575.6	5821.8	900.3	510.3	442.9	372.5	302.9	257.4	240.0	240.0	242.3
40°	9010.2	5819.5	723.1	475.5	402.8	322.6	249.9	217.3	207.5	212.8	215.0
42.5°	9645.5	5952.0	630.0	442.9	368.0	274.8	207.5	184.7	182.5	187.8	190.0
45°	10513.2	6194.3	580.0	414.9	330.1	230.2	174.9	159.8	159.8	167.3	170.4
47.5°	11576.2	6549.4	537.6	387.7	292.3	192.3	149.9	140.1	142.3	149.9	152.2
50°	12856.6	6997.7	495.2	357.4	265.0	159.8	130.2	122.7	124.9	134.8	137.8
52.5°	14314.9	7600.4	460.4	330.1	230.2	132.5	109.8	105.2	109.8	120.4	122.7
55°	15565.0	8140.2	418.0	307.4	184.7	109.8	90.1	90.1	95.4	107.5	109.8
57.5°	16768.1	8705.1	380.1	265.0	145.4	87.8	75.0	77.2	84.8	97.7	99.9
60°	18533.8	9662.9	335.4	222.6	109.8	69.7	62.8	65.1	75.0	87.8	90.1
62.5°	21532.2	11121.2	290.0	184.7	84.8	55.3	50.0	55.3	67.4	82.5	84.8
65°	24238.2	11714.0	237.7	155.2	65.1	42.4	42.4	50.0	65.1	80.3	82.5
67.5°	22730.0	9860.5	184.7	122.7	50.0	32.6	34.8	47.7	62.8	80.3	82.5
69°	20101.9	8063.0	157.5	97.7	42.4	30.3	32.6	47.7	62.8	77.2	80.3
70°	18053.8	6807.6	140.1	82.5	37.9	30.3	32.6	44.7	62.8	77.2	80.3
72.5°	12091.9	3676.0	112.8	59.8	34.8	27.3	27.3	44.7	59.8	75.0	77.2
75°	5196.4	1015.4	90.1	42.4	30.3	25.0	25.0	42.4	57.5	72.7	77.2
77.5°	950.2	257.4	72.7	37.9	30.3	25.0	22.7	40.1	55.3	69.7	72.7
80°	377.8	127.2	57.5	32.6	27.3	22.7	19.7	37.9	52.2	67.4	69.7
82.5°	227.9	72.7	47.7	30.3	27.3	19.7	17.4	32.6	50.0	65.1	67.4
85°	184.7	50.0	37.9	30.3	25.0	19.7	15.1	30.3	44.7	62.8	65.1
87.5°	90.1	34.8	34.8	27.3	25.0	19.7	15.1	27.3	42.4	59.8	62.8
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)