

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: P300708

Luminaire Tested: **GLNA-AF-09-LED-E1-AFL-7027-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300708  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24297)  
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-AFL-7027-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive  
Frontline WITH HOUSESIDE SHIELD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 27778.5 lumens  
Efficiency: N/A  
Efficacy: 74.3 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2  
  
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

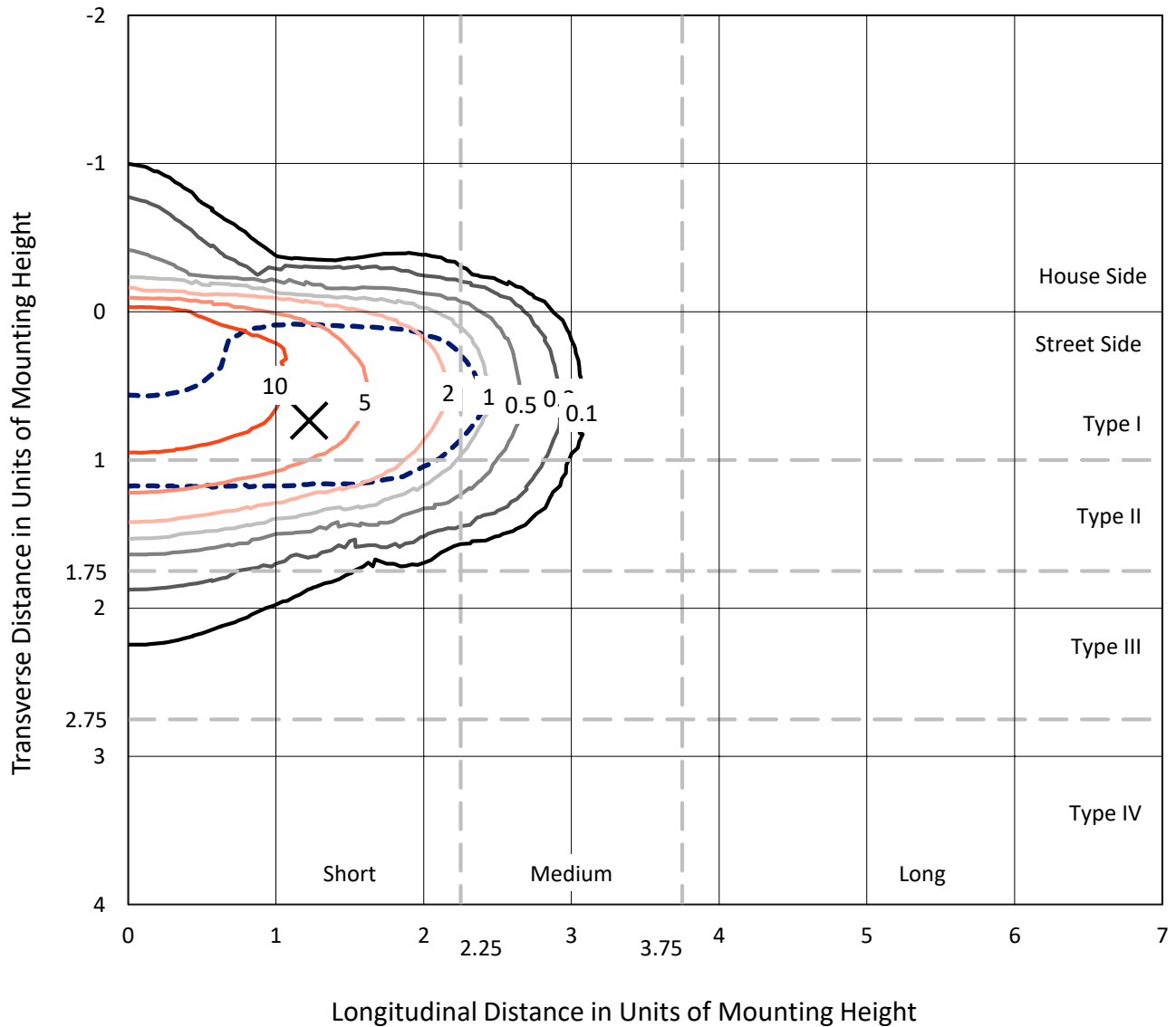


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

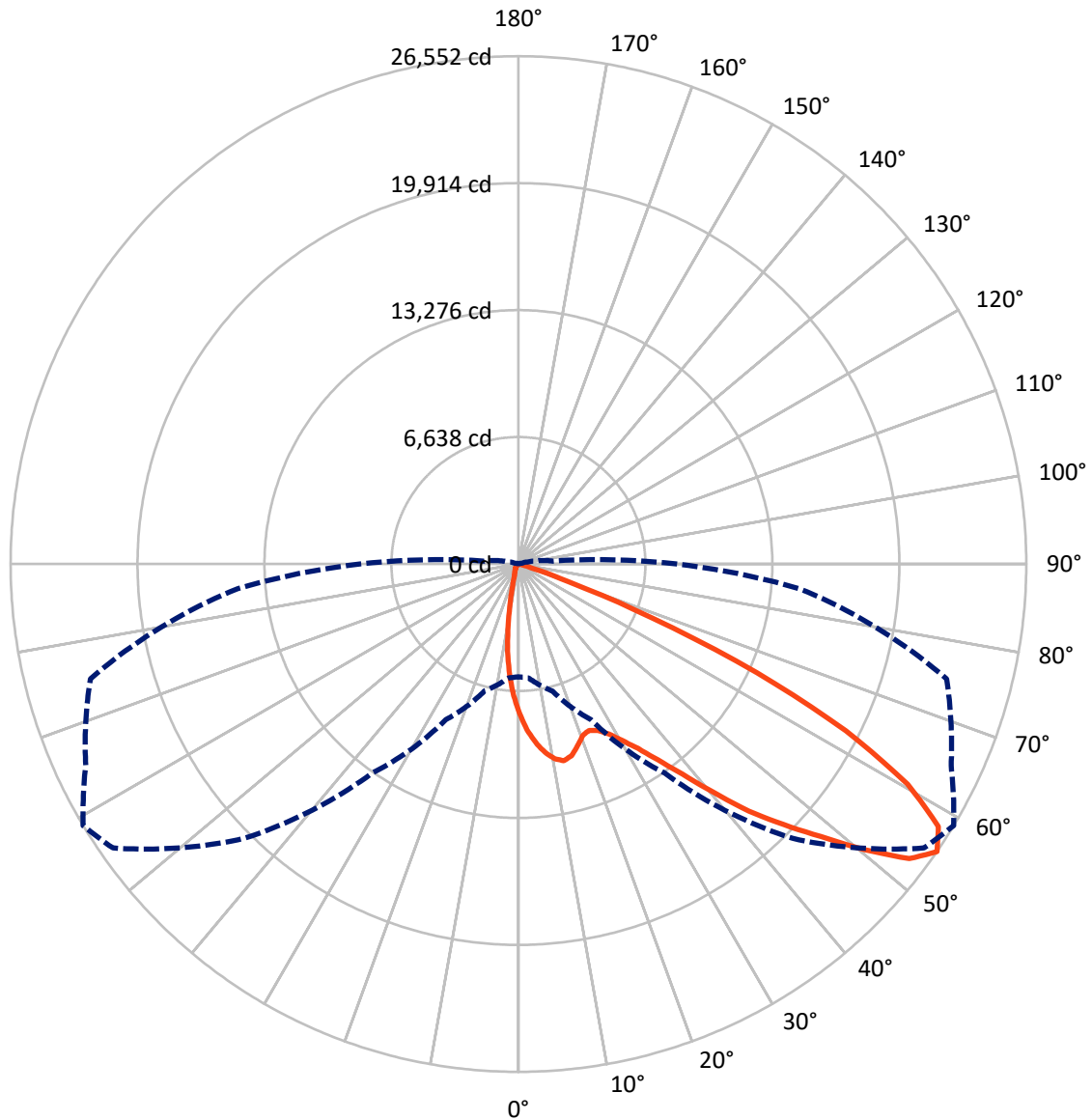


Based on 25 foot mounting height. Maximum calculated value = 15.6 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 55-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1551.6	0.0	1551.6
	% Fixture	5.6	0.0	5.6
<b>Street Side</b>	Lumens	26227.0	0.0	26227.0
	% Fixture	94.4	0.0	94.4
<b>Total</b>	Lumens	27778.5	0.0	27778.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	655.0	2.4
10°-20°	1568.2	5.6
20°-30°	2668.4	9.6
30°-40°	4589.1	16.5
40°-50°	7085.1	25.5
50°-60°	7122.8	25.6
60°-70°	3652.6	13.1
70°-80°	395.8	1.4
80°-90°	41.4	0.1
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°	27778.5	100.0
0°-180°	27778.5	100.0

**Coefficient of Utilization**



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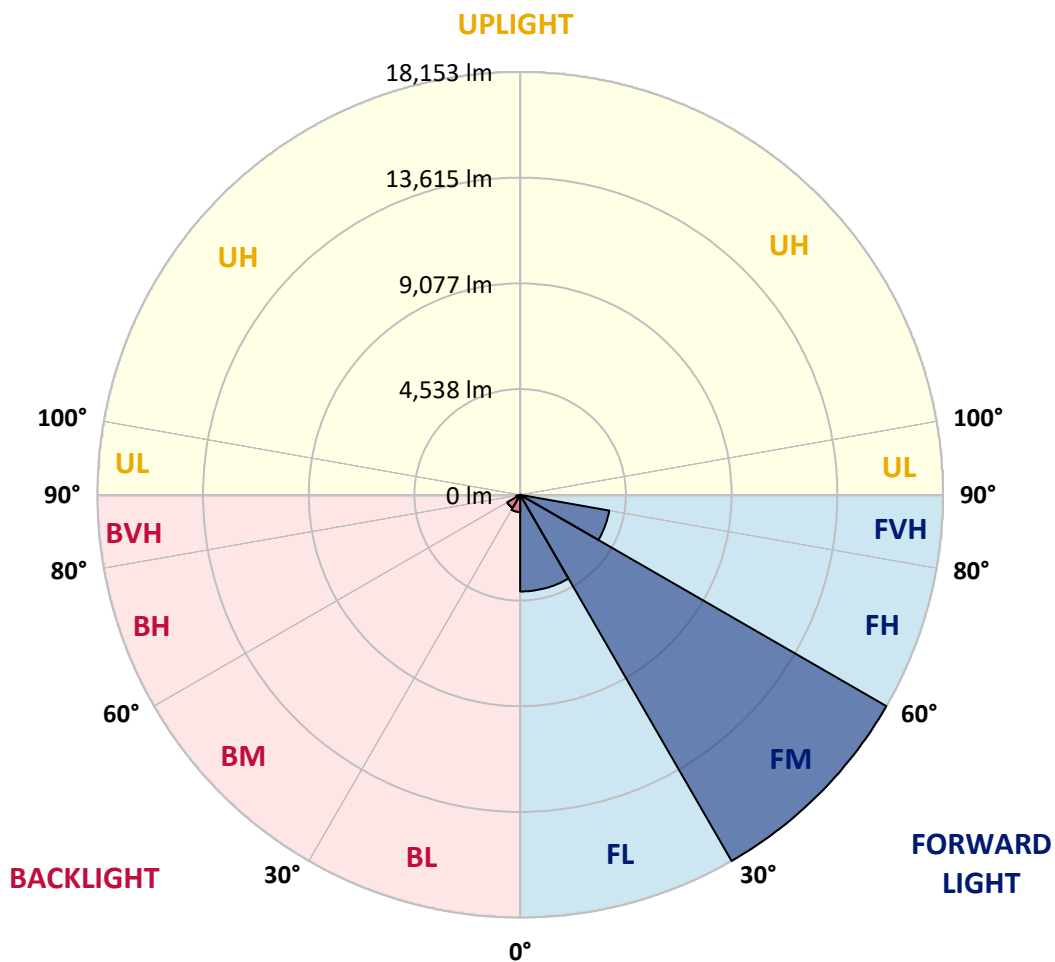
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4151.0	14.9			
FM	(30°-60°)	18153.2	65.3			
FH	(60°-80°)	3882.2	14.0			G2/5000
FVH	(80°-90°)	40.5	0.1			G1/100
BL	(0°-30°)	740.6	2.7	B2/1000		
BM	(30°-60°)	643.9	2.3	B1/1000		
BH	(60°-80°)	166.2	0.6	B1/500		G1/500
BVH	(80°-90°)	0.9	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	7819.6	7819.6	7819.6	7819.6	7819.6	7819.6	7819.6	7819.6	7819.6	7819.6	7819.6
2.5°	9252.3	9154.0	9124.5	9104.8	9014.6	8901.5	8747.4	8675.3	8527.7	8290.0	7998.2
5°	10099.9	10081.8	10016.2	9980.2	9883.5	9722.8	9476.9	9358.9	9124.5	8724.5	8201.5
7.5°	9729.4	9842.5	9932.6	10083.5	10273.6	10267.1	10060.5	9937.6	9675.3	9147.4	8427.7
10°	8298.2	8390.0	8537.6	8880.2	9578.5	10194.9	10437.6	10349.0	10139.2	9535.9	8645.8
12.5°	8017.9	8008.1	8034.3	8134.3	8499.9	9378.6	10373.6	10552.3	10509.7	9891.7	8852.3
15°	8167.1	8155.6	8152.3	8186.8	8275.3	8645.8	9893.3	10406.4	10735.9	10221.2	9027.7
17.5°	8585.1	8535.9	8509.7	8481.8	8455.6	8547.4	9316.3	9998.2	10770.3	10509.7	9173.6
20°	9301.5	9219.5	9122.8	8965.4	8817.9	8772.0	9073.6	9578.5	10647.4	10729.4	9268.7
22.5°	10201.5	10096.6	9929.4	9642.5	9342.5	9168.7	9193.3	9445.8	10463.8	10968.7	9313.0
25°	11213.0	11078.5	10855.6	10457.2	10016.2	9708.1	9547.4	9635.9	10380.2	11249.0	9363.8
27.5°	12296.5	12147.4	11855.6	11312.9	10813.0	10396.6	10068.7	10057.2	10522.8	11616.2	9445.8
30°	13370.3	13347.3	12967.0	12393.3	11731.0	11224.4	10752.3	10691.6	10921.2	12124.4	9608.1
32.5°	14803.1	14630.9	14165.4	13575.2	12811.3	12203.1	11644.1	11503.1	11532.6	12716.2	9858.9
35°	16609.6	16421.1	15765.3	14950.6	14096.5	13378.5	12760.5	12568.7	12496.5	13685.0	10281.8
37.5°	17776.8	17773.5	17362.0	16532.5	15616.2	14824.4	14152.3	13927.7	13781.8	14855.5	10937.5
40°	17807.9	17885.0	17939.1	17930.9	17278.4	16548.9	15952.2	15675.2	15335.8	16419.4	11785.1
42.5°	16852.2	17050.6	17527.6	18337.4	18724.3	18434.2	17930.9	17658.8	17153.8	18093.2	12817.8
45°	15560.4	15698.1	16532.5	18024.3	19507.9	20303.0	19919.4	19432.5	18766.9	19839.1	13744.1
47.5°	14981.7	15006.3	15545.7	17183.4	19566.9	21834.1	22066.9	21275.1	20232.5	21245.6	14468.6
50°	13252.3	13296.5	14040.8	15726.0	18875.1	22557.0	24224.2	23473.4	21830.8	22329.2	14732.6
52.5°	9988.4	10050.7	10994.9	13331.0	16973.5	22248.9	25768.5	25586.5	23581.6	22858.7	14747.3
55°	5893.4	5975.3	6876.9	8973.6	13350.6	20288.2	25883.2	26552.1	24963.6	23171.8	14724.4
57.5°	2752.4	2809.8	3326.2	4622.9	8303.2	16034.2	24155.4	25889.8	25725.9	23337.4	14886.7
60°	1462.3	1478.7	1603.3	2001.6	3752.4	10167.1	20783.3	23378.3	25030.8	23566.9	15085.0
62.5°	1118.0	1122.9	1116.4	1163.9	1577.0	4513.0	15709.6	19219.4	22232.5	23394.7	14865.4
65°	968.8	977.0	931.1	919.7	1011.5	1609.8	9332.7	13699.8	17470.2	21071.8	13368.7
67.5°	868.8	872.1	816.4	768.8	785.2	870.5	3681.9	7499.9	11563.8	15445.7	9690.0
70°	800.0	796.7	736.1	660.6	639.3	595.1	1170.5	2749.1	5526.1	7832.7	4506.5
72.5°	708.2	709.8	680.3	582.0	531.1	416.4	542.6	801.6	1649.2	2134.4	1055.7
75°	627.9	619.7	583.6	521.3	437.7	273.8	268.8	357.4	508.2	504.9	227.9
77.5°	454.1	445.9	457.4	427.9	336.1	177.0	134.4	172.1	206.6	200.0	63.9
80°	332.8	327.9	295.1	355.7	296.7	121.3	83.6	91.8	106.6	90.2	19.7
82.5°	227.9	226.2	208.2	196.7	168.8	73.8	52.5	57.4	68.9	50.8	9.8
85°	36.1	41.0	150.8	119.7	100.0	32.8	36.1	39.3	45.9	27.9	3.3
87.5°	0.0	0.0	70.5	62.3	19.7	13.1	21.3	23.0	23.0	14.8	0.0
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°	7819.6	7819.6	7819.6	7819.6	7819.6	7819.6	7819.6	7819.6	7819.6	7819.6	7819.6
2.5°	7849.1	7685.1	7381.9	7068.7	6778.6	6432.7	6195.0	6016.3	5809.8	5754.0	5875.3
5°	7903.2	7593.3	6940.9	6231.1	5563.9	4824.5	4259.0	3811.4	3406.5	3268.8	3393.4
7.5°	7988.4	7527.8	6463.8	5295.0	4134.4	2980.3	2190.1	1670.5	1339.3	1241.0	1293.4
10°	8073.7	7432.7	5911.4	4186.8	2600.0	1450.8	944.2	754.1	683.6	668.8	677.0
12.5°	8144.1	7304.8	5237.6	2977.0	1390.1	777.0	618.0	586.9	577.0	577.0	580.3
15°	8186.8	7111.4	4439.3	1893.4	800.0	586.9	539.3	529.5	529.5	531.1	534.4
17.5°	8181.8	6865.5	3565.5	1145.9	598.4	519.7	491.8	483.6	482.0	485.2	486.9
20°	8121.2	6544.2	2688.5	755.7	521.3	473.8	445.9	431.1	429.5	432.8	436.1
22.5°	8006.4	6147.5	1922.9	582.0	470.5	429.5	395.1	382.0	382.0	385.2	388.5
25°	7867.1	5662.2	1314.7	493.4	424.6	382.0	349.2	337.7	341.0	349.2	350.8
27.5°	7693.3	5116.3	893.4	422.9	368.8	334.4	309.8	301.6	309.8	321.3	324.6
30°	7544.2	4547.5	637.7	365.6	313.1	288.5	273.8	273.8	285.2	306.6	311.5
32.5°	7429.4	3996.7	491.8	322.9	272.1	250.8	242.6	250.8	268.8	290.2	295.1
35°	7414.6	3542.6	416.4	288.5	242.6	221.3	218.0	232.8	250.8	267.2	270.5
37.5°	7527.8	3122.9	375.4	260.7	216.4	196.7	193.4	211.5	229.5	249.2	254.1
40°	7742.5	2793.4	345.9	234.4	195.1	173.8	167.2	180.3	204.9	231.1	237.7
42.5°	8021.2	2521.3	313.1	208.2	173.8	144.3	136.1	150.8	177.0	204.9	213.1
45°	8286.8	2286.9	277.0	178.7	145.9	111.5	108.2	127.9	141.0	168.8	175.4
47.5°	8432.7	2080.3	245.9	145.9	113.1	90.2	90.2	95.1	108.2	141.0	147.5
50°	8383.5	1914.7	213.1	108.2	78.7	68.9	68.9	67.2	86.9	113.1	118.0
52.5°	8285.1	1819.6	183.6	83.6	54.1	49.2	44.3	49.2	60.7	72.1	73.8
55°	8270.4	1803.3	154.1	67.2	37.7	32.8	24.6	24.6	24.6	23.0	19.7
57.5°	8385.1	1829.5	129.5	54.1	27.9	21.3	13.1	0.0	0.0	0.0	0.0
60°	8503.2	1857.3	111.5	37.7	19.7	11.5	1.6	0.0	0.0	0.0	0.0
62.5°	8306.4	1795.1	93.4	23.0	14.8	4.9	0.0	0.0	0.0	0.0	0.0
65°	7296.6	1527.8	73.8	16.4	9.8	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	5190.1	1022.9	49.2	9.8	1.6	0.0	0.0	0.0	0.0	0.0	0.0
70°	2368.8	427.9	31.1	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	506.5	132.8	21.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	103.3	96.7	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	32.8	152.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	19.7	109.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	3.3	16.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)