

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: P300771

Luminaire Tested: **GLNA-AF-09-LED-E1-AFL-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300771
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-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive
Frontline WITH HOUSESIDE SHIELD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26070.7 lumens
Efficiency: N/A
Efficacy: 89.9 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): 290
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

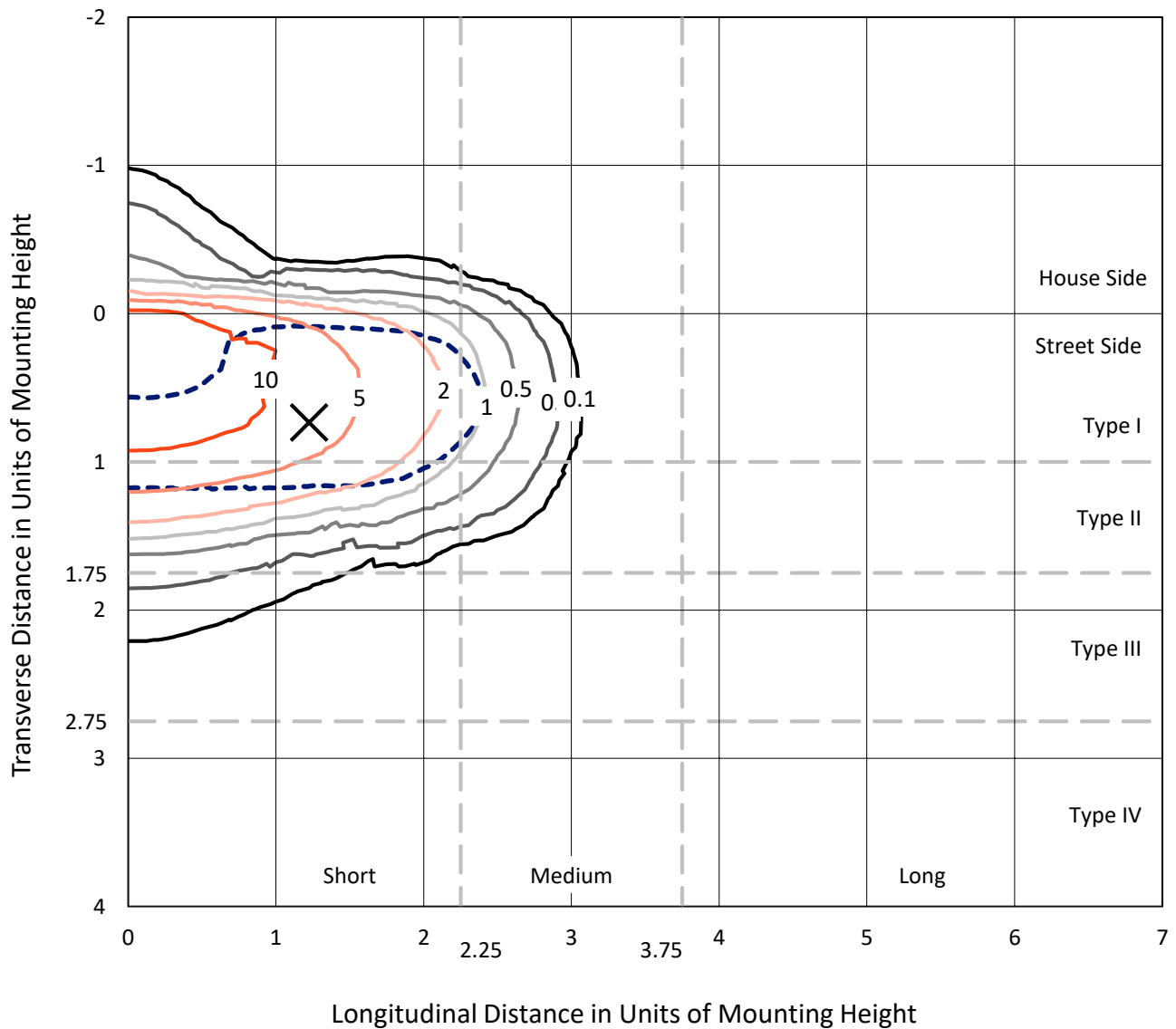


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

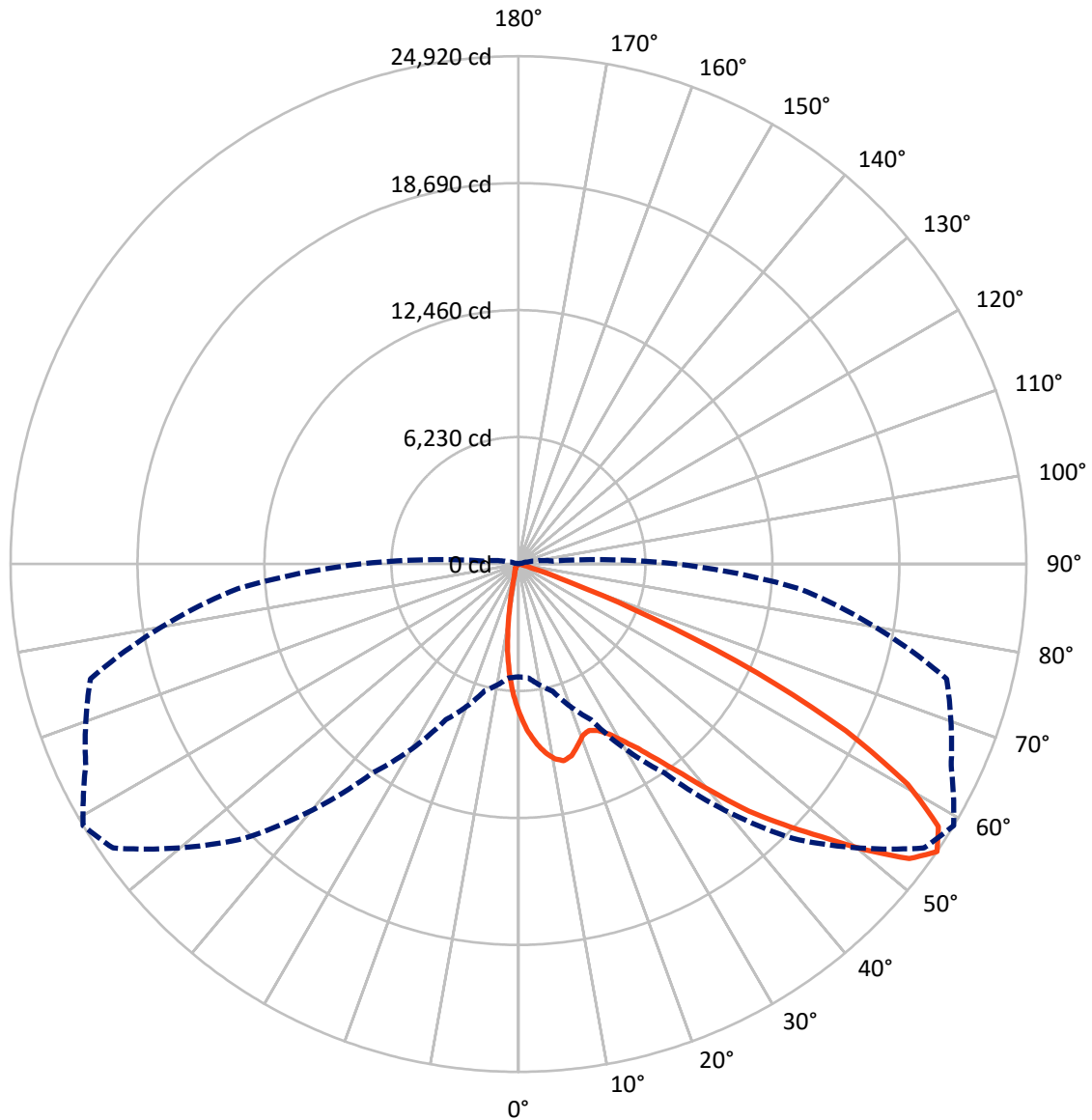


Based on 25 foot mounting height. Maximum calculated value = 14.6 fc
 Type II - Short - Full Cutoff

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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
House Side	Lumens	1456.2	0.0	1456.2
	% Fixture	5.6	0.0	5.6
Street Side	Lumens	24614.5	0.0	24614.5
	% Fixture	94.4	0.0	94.4
Total	Lumens	26070.7	0.0	26070.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	614.7	2.4
10°-20°	1471.8	5.6
20°-30°	2504.4	9.6
30°-40°	4307.0	16.5
40°-50°	6649.5	25.5
50°-60°	6684.9	25.6
60°-70°	3428.1	13.1
70°-80°	371.5	1.4
80°-90°	38.8	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°	26070.7	100.0
0°-180°	26070.7	100.0

Coefficient of Utilization



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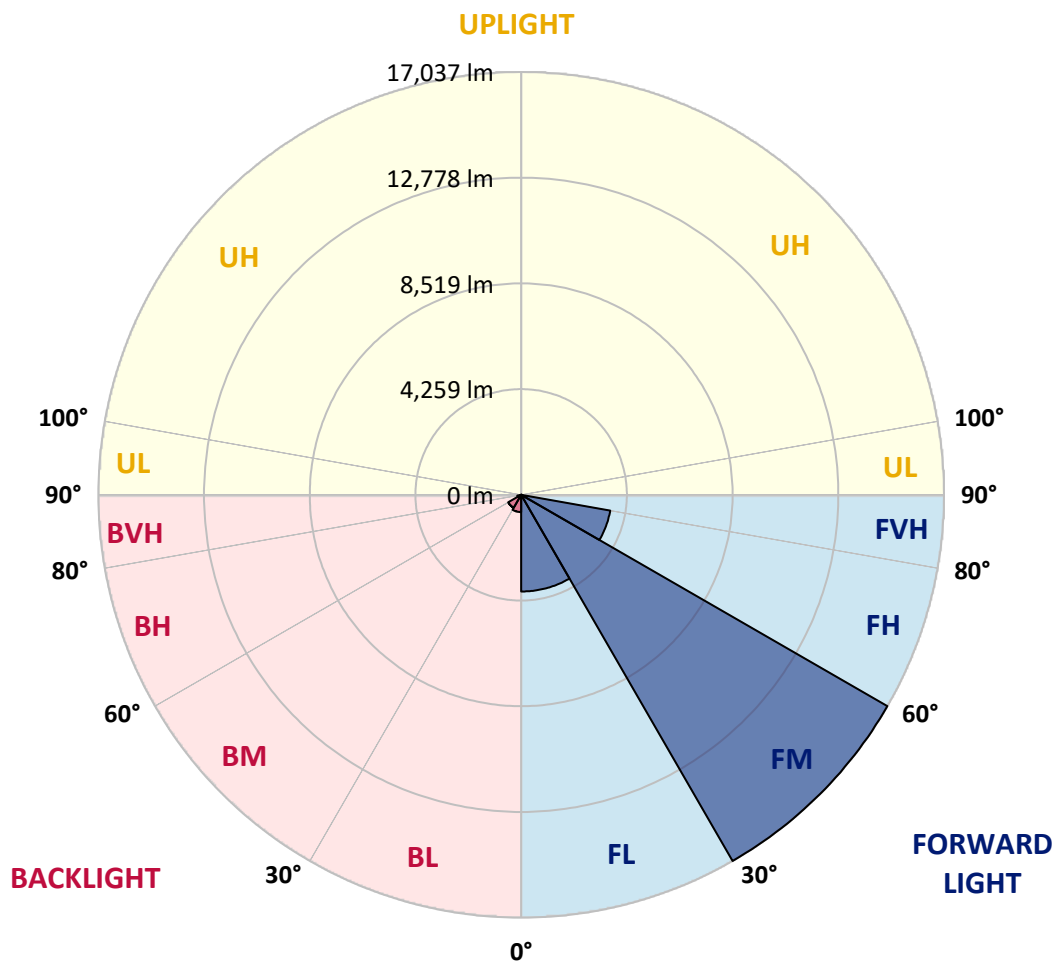
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3895.8	14.9			
FM (30°-60°)	17037.1	65.3			
FH (60°-80°)	3643.6	14.0			G2/5000
FVH (80°-90°)	38.0	0.1			G1/100
BL (0°-30°)	695.0	2.7	B2/1000		
BM (30°-60°)	604.3	2.3	B1/1000		
BH (60°-80°)	156.0	0.6	B1/500		G1/500
BVH (80°-90°)	0.8	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°	7338.8	7338.8	7338.8	7338.8	7338.8	7338.8	7338.8	7338.8	7338.8	7338.8	7338.8
2.5°	8683.5	8591.2	8563.5	8545.0	8460.4	8354.2	8209.6	8141.9	8003.5	7780.4	7506.5
5°	9478.9	9462.0	9400.4	9366.6	9275.8	9125.0	8894.3	8783.5	8563.5	8188.1	7697.3
7.5°	9131.2	9237.4	9322.0	9463.5	9642.0	9635.8	9442.0	9326.6	9080.4	8585.0	7909.6
10°	7788.1	7874.2	8012.7	8334.2	8989.7	9568.1	9795.8	9712.8	9515.8	8949.7	8114.2
12.5°	7525.0	7515.7	7540.4	7634.2	7977.3	8802.0	9735.8	9903.5	9863.5	9283.5	8308.1
15°	7665.0	7654.2	7651.1	7683.4	7766.5	8114.2	9285.1	9766.6	10075.9	9592.8	8472.7
17.5°	8057.3	8011.1	7986.5	7960.4	7935.8	8021.9	8743.5	9383.5	10108.2	9863.5	8609.6
20°	8729.6	8652.7	8561.9	8414.2	8275.8	8232.7	8515.8	8989.7	9992.8	10069.7	8698.9
22.5°	9574.3	9475.8	9318.9	9049.7	8768.1	8605.0	8628.1	8865.0	9820.5	10294.3	8740.4
25°	10523.6	10397.4	10188.2	9814.3	9400.4	9111.2	8960.4	9043.5	9742.0	10557.4	8788.1
27.5°	11540.5	11400.5	11126.7	10617.4	10148.2	9757.4	9449.7	9438.9	9875.8	10902.1	8865.0
30°	12548.3	12526.7	12169.8	11631.3	11009.7	10534.3	10091.2	10034.3	10249.7	11379.0	9017.3
32.5°	13893.0	13731.4	13294.5	12740.6	12023.6	11452.8	10928.2	10795.9	10823.6	11934.4	9252.7
35°	15588.4	15411.5	14796.1	14031.4	13229.9	12556.0	11975.9	11795.9	11728.2	12843.7	9649.7
37.5°	16683.9	16680.8	16294.6	15516.1	14656.1	13913.0	13282.2	13071.4	12934.5	13942.2	10265.1
40°	16713.1	16785.4	16836.2	16828.5	16216.1	15531.5	14971.5	14711.5	14393.0	15410.0	11060.5
42.5°	15816.1	16002.3	16450.0	17210.0	17573.1	17300.8	16828.5	16573.1	16099.2	16980.8	12029.8
45°	14603.8	14733.0	15516.1	16916.2	18308.6	19054.7	18694.7	18237.8	17613.1	18619.3	12899.1
47.5°	14060.7	14083.7	14589.9	16126.9	18363.9	20491.7	20710.2	19967.1	18988.6	19939.4	13579.1
50°	12437.5	12479.0	13177.5	14759.2	17714.7	21170.2	22734.9	22030.3	20488.7	20956.4	13826.8
52.5°	9374.3	9432.8	10318.9	12511.4	15930.0	20881.0	24184.2	24013.4	22131.8	21453.3	13840.7
55°	5531.0	5608.0	6454.1	8421.9	12529.8	19040.9	24291.9	24919.6	23428.8	21747.2	13819.1
57.5°	2583.2	2637.0	3121.7	4338.7	7792.7	15048.4	22670.3	24298.1	24144.2	21902.6	13971.4
60°	1372.4	1387.8	1504.7	1878.5	3521.7	9542.0	19505.5	21941.0	23491.9	22118.0	14157.6
62.5°	1049.3	1053.9	1047.7	1092.4	1480.1	4235.6	14743.8	18037.8	20865.6	21956.4	13951.4
65°	909.3	917.0	873.9	863.1	949.3	1510.8	8758.9	12857.5	16396.2	19776.3	12546.7
67.5°	815.4	818.5	766.2	721.6	737.0	817.0	3455.5	7038.8	10852.8	14496.1	9094.3
70°	750.8	747.7	690.8	620.0	600.0	558.5	1098.5	2580.1	5186.4	7351.1	4229.4
72.5°	664.6	666.2	638.5	546.2	498.5	390.8	509.3	752.3	1547.8	2003.2	990.8
75°	589.3	581.6	547.7	489.3	410.8	256.9	252.3	335.4	476.9	473.9	213.9
77.5°	426.2	418.5	429.3	401.6	315.4	166.2	126.2	161.5	193.9	187.7	60.0
80°	312.3	307.7	276.9	333.9	278.5	113.9	78.5	86.2	100.0	84.6	18.5
82.5°	213.9	212.3	195.4	184.6	158.5	69.2	49.2	53.8	64.6	47.7	9.2
85°	33.8	38.5	141.5	112.3	93.9	30.8	33.8	36.9	43.1	26.2	3.1
87.5°	0.0	0.0	66.2	58.5	18.5	12.3	20.0	21.5	21.5	13.8	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°	7338.8	7338.8	7338.8	7338.8	7338.8	7338.8	7338.8	7338.8	7338.8	7338.8	7338.8
2.5°	7366.5	7212.6	6928.0	6634.2	6361.8	6037.2	5814.1	5646.4	5452.6	5400.3	5514.1
5°	7417.3	7126.5	6514.2	5848.0	5221.8	4527.9	3997.1	3577.1	3197.1	3067.8	3184.8
7.5°	7497.3	7064.9	6066.4	4969.5	3880.2	2797.1	2055.5	1567.8	1257.0	1164.7	1213.9
10°	7577.3	6975.7	5548.0	3929.4	2440.1	1361.6	886.2	707.7	641.6	627.7	635.4
12.5°	7643.4	6855.7	4915.6	2794.0	1304.7	729.3	580.0	550.8	541.6	541.6	544.6
15°	7683.4	6674.2	4166.3	1777.0	750.8	550.8	506.2	496.9	496.9	498.5	501.6
17.5°	7678.8	6443.4	3346.3	1075.4	561.6	487.7	461.6	453.9	452.3	455.4	456.9
20°	7621.9	6141.8	2523.2	709.3	489.3	444.6	418.5	404.6	403.1	406.2	409.3
22.5°	7514.2	5769.5	1804.7	546.2	441.6	403.1	370.8	358.5	358.5	361.6	364.6
25°	7383.4	5314.1	1233.9	463.1	398.5	358.5	327.7	316.9	320.0	327.7	329.2
27.5°	7220.3	4801.8	838.5	396.9	346.2	313.9	290.8	283.1	290.8	301.6	304.6
30°	7080.3	4267.9	598.5	343.1	293.9	270.8	256.9	256.9	267.7	287.7	292.3
32.5°	6972.6	3750.9	461.6	303.1	255.4	235.4	227.7	235.4	252.3	272.3	276.9
35°	6958.8	3324.8	390.8	270.8	227.7	207.7	204.6	218.5	235.4	250.8	253.9
37.5°	7064.9	2930.9	352.3	244.6	203.1	184.6	181.5	198.5	215.4	233.9	238.5
40°	7266.5	2621.7	324.6	220.0	183.1	163.1	156.9	169.2	192.3	216.9	223.1
42.5°	7528.0	2366.3	293.9	195.4	163.1	135.4	127.7	141.5	166.2	192.3	200.0
45°	7777.3	2146.3	260.0	167.7	136.9	104.6	101.5	120.0	132.3	158.5	164.6
47.5°	7914.2	1952.4	230.8	136.9	106.2	84.6	84.6	89.2	101.5	132.3	138.5
50°	7868.1	1797.0	200.0	101.5	73.8	64.6	64.6	63.1	81.5	106.2	110.8
52.5°	7775.8	1707.8	172.3	78.5	50.8	46.2	41.5	46.2	56.9	67.7	69.2
55°	7761.9	1692.4	144.6	63.1	35.4	30.8	23.1	23.1	23.1	21.5	18.5
57.5°	7869.6	1717.0	121.5	50.8	26.2	20.0	12.3	0.0	0.0	0.0	0.0
60°	7980.4	1743.2	104.6	35.4	18.5	10.8	1.5	0.0	0.0	0.0	0.0
62.5°	7795.8	1684.7	87.7	21.5	13.8	4.6	0.0	0.0	0.0	0.0	0.0
65°	6848.0	1433.9	69.2	15.4	9.2	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	4871.0	960.0	46.2	9.2	1.5	0.0	0.0	0.0	0.0	0.0	0.0
70°	2223.2	401.6	29.2	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	475.4	124.6	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	96.9	90.8	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	30.8	143.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	18.5	103.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	3.1	15.4	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)