

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: P300951

Luminaire Tested: **GLNA-AF-09-LED-E1-SL4-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300951  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)  
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-SL4-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 40707.8 lumens  
Efficiency: N/A  
Efficacy: 108.8 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G5

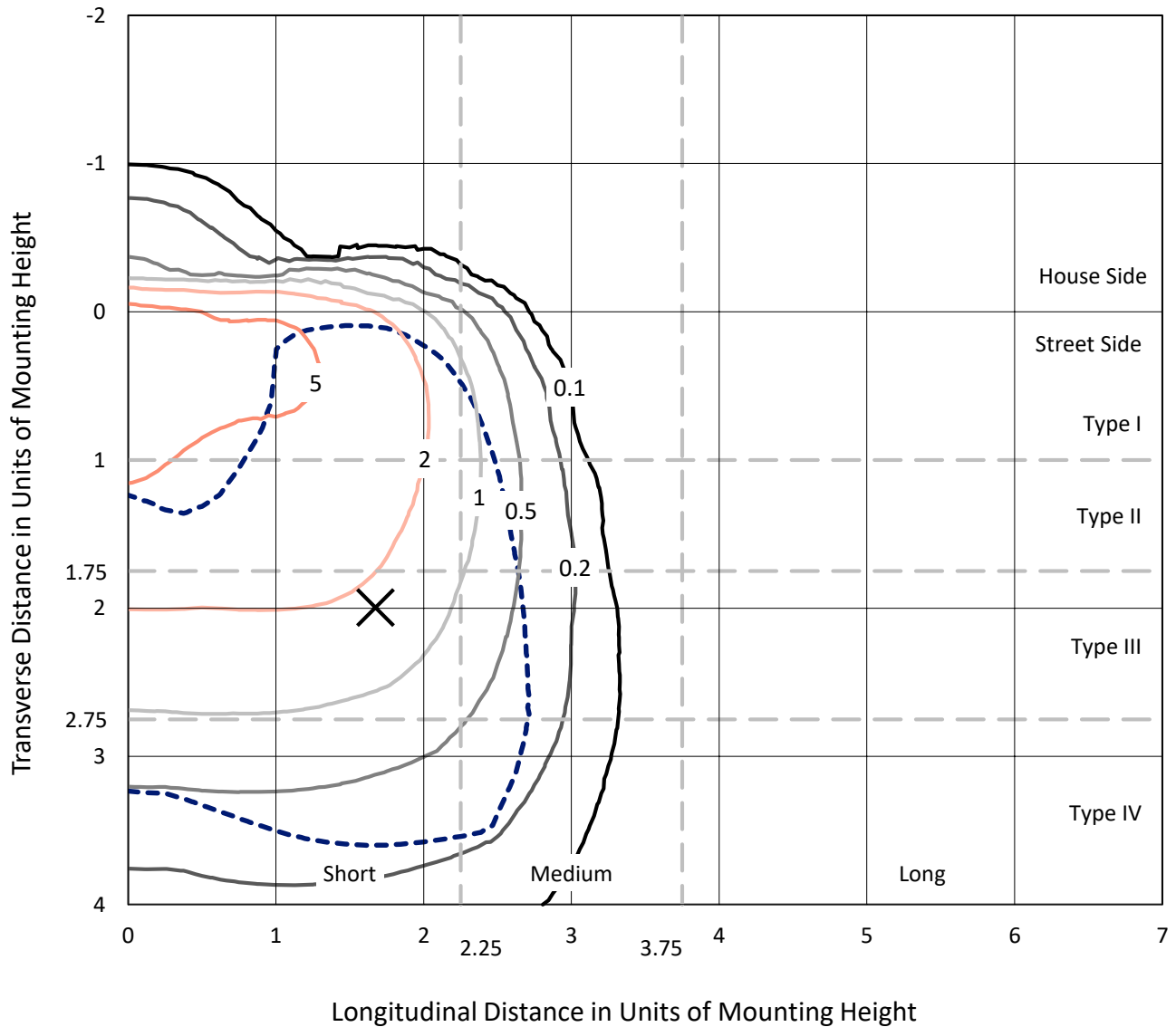
Input Watts (W): 374  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

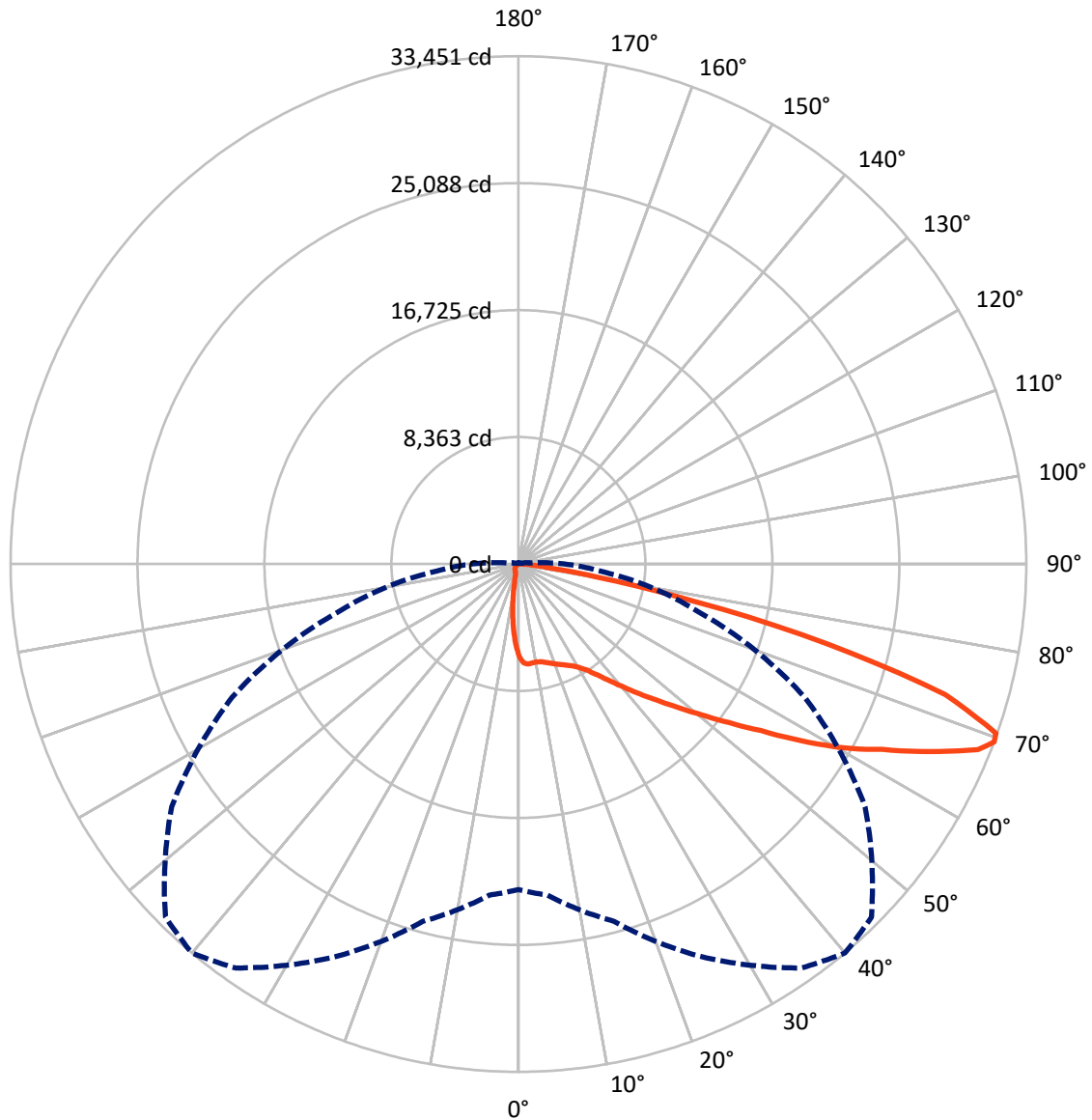
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.4 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2381.6	0.0	2381.6
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	38326.2	0.0	38326.2
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	40707.8	0.0	40707.8
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	493.1	1.2
10°-20°	1212.7	3.0
20°-30°	2042.6	5.0
30°-40°	3343.8	8.2
40°-50°	5789.6	14.2
50°-60°	9119.3	22.4
60°-70°	11909.4	29.3
70°-80°	6133.9	15.1
80°-90°	663.5	1.6
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°	40707.8	100.0
0°-180°	40707.8	100.0

**Coefficient of Utilization**



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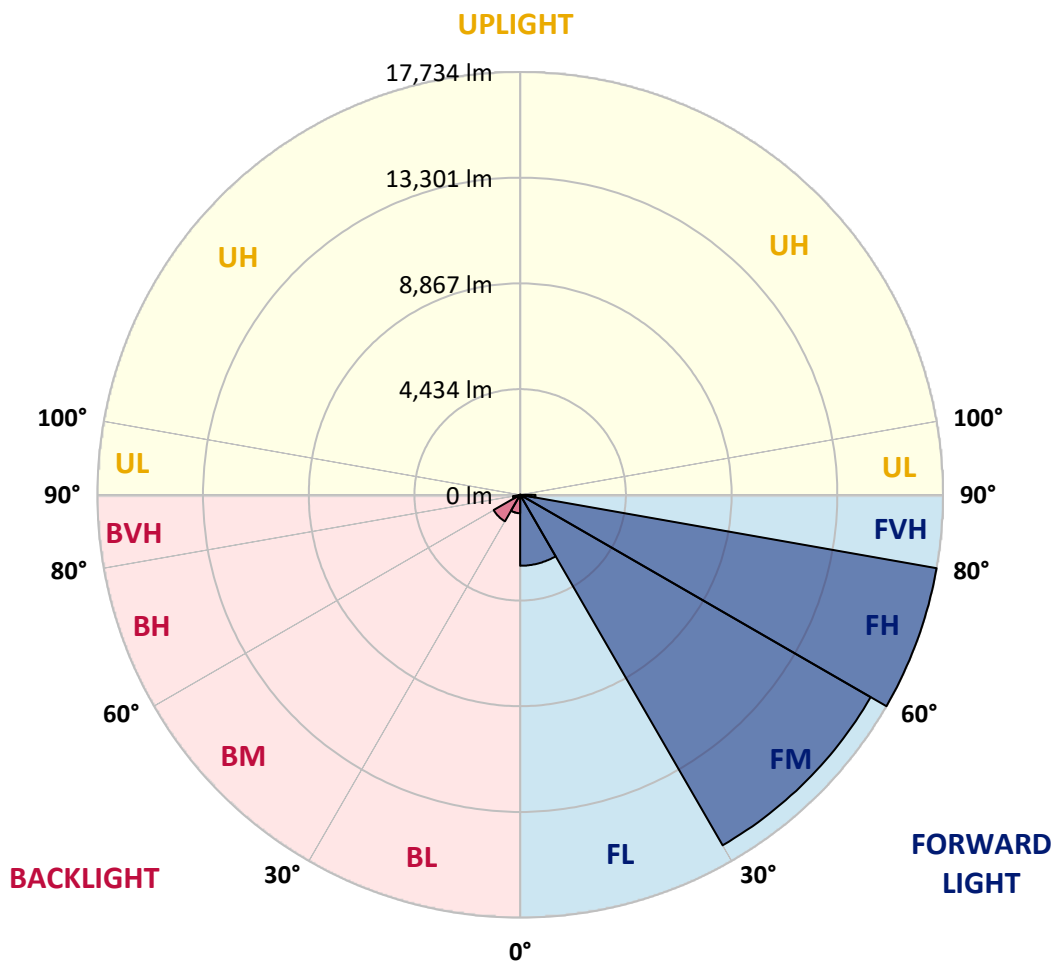
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2976.9	7.3			
FM	(30°-60°)	16972.6	41.7			
FH	(60°-80°)	17734.0	43.6			G5
FVH	(80°-90°)	642.7	1.6			G4/750
BL	(0°-30°)	771.5	1.9	B2/1000		
BM	(30°-60°)	1280.1	3.1	B2/2500		
BH	(60°-80°)	309.3	0.8	B1/500		G1/500
BVH	(80°-90°)	20.8	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	6082.0	6082.0	6082.0	6082.0	6082.0	6082.0	6082.0	6082.0	6082.0	6082.0	6082.0
2.5°	6678.0	6641.7	6619.9	6590.8	6554.5	6523.0	6510.8	6421.2	6336.4	6220.1	6086.8
5°	6801.6	6789.5	6750.7	6712.0	6668.3	6619.9	6593.2	6486.6	6365.5	6195.8	5963.2
7.5°	6813.7	6799.2	6750.7	6697.4	6636.8	6578.7	6532.7	6426.0	6314.6	6142.5	5859.0
10°	6794.3	6777.4	6741.0	6682.9	6607.8	6552.0	6506.0	6404.2	6309.7	6154.7	5839.6
12.5°	6772.5	6755.6	6738.6	6709.5	6644.1	6605.3	6566.6	6469.7	6384.8	6254.0	5909.9
15°	6794.3	6784.7	6804.0	6791.9	6755.6	6721.7	6682.9	6595.7	6518.1	6409.1	6038.3
17.5°	6886.4	6886.4	6947.0	6954.3	6920.3	6871.9	6816.2	6728.9	6663.5	6571.4	6191.0
20°	7102.1	7094.8	7172.3	7186.9	7104.5	7029.4	6947.0	6840.4	6789.5	6731.3	6341.2
22.5°	7472.8	7438.9	7484.9	7470.4	7308.0	7191.7	7090.0	6959.1	6932.5	6905.8	6508.4
25°	7955.0	7935.6	7967.1	7824.2	7538.2	7380.7	7259.6	7111.8	7111.8	7138.4	6697.4
27.5°	8655.3	8582.6	8476.0	8224.0	7795.1	7594.0	7463.1	7305.6	7346.8	7446.2	6947.0
30°	9372.5	9292.6	9047.8	8660.1	8107.7	7896.9	7744.2	7579.4	7676.4	7858.1	7281.4
32.5°	10080.1	9990.4	9643.9	9154.4	8555.9	8345.1	8197.3	8015.6	8177.9	8483.2	7770.9
35°	10765.8	10685.8	10286.0	9709.3	9152.0	8977.6	8841.9	8684.4	8892.7	9319.2	8461.4
37.5°	11536.3	11449.1	10962.1	10336.9	9876.5	9750.5	9651.2	9493.7	9857.1	10482.3	9423.4
40°	12483.8	12336.0	11679.3	11056.6	10714.9	10654.3	10586.5	10564.7	11129.3	11994.3	10705.2
42.5°	13569.3	13327.0	12430.5	11815.0	11635.7	11679.3	11662.3	11759.3	12721.2	13874.6	12265.7
45°	14654.9	14342.3	13266.4	12624.3	12648.5	12801.2	12895.7	13283.4	14715.4	16031.2	13944.9
47.5°	15575.6	15267.9	14068.5	13499.0	13789.8	14090.3	14347.1	15081.3	16765.4	18153.8	15250.9
50°	16363.1	16072.4	14919.0	14461.0	15115.2	15599.9	16016.6	17104.6	18970.4	19770.0	16166.9
52.5°	17007.7	16813.8	15801.0	15563.5	16629.7	17339.6	17950.3	19253.9	20923.4	21083.3	16879.3
55°	17635.3	17497.1	16748.4	16874.4	18408.2	19375.0	20148.0	21534.0	22605.0	22178.6	17562.6
57.5°	18357.3	18231.3	17829.1	18536.6	20746.5	21962.9	22806.1	23554.9	24085.5	23298.0	18207.1
60°	19094.0	19021.3	19031.0	20383.0	23431.3	24599.2	25064.5	25258.3	25539.4	24352.1	18243.5
62.5°	19796.7	19934.8	20404.8	22437.8	26002.2	26898.7	27133.8	27325.2	26995.7	24519.3	16855.0
65°	20986.4	21211.7	22333.6	25188.0	28829.9	29789.5	30031.8	29375.1	27225.8	22357.9	13709.8
67.5°	21567.9	21979.9	23981.3	27751.7	31572.9	32639.0	32549.4	29508.4	24432.0	17048.9	8798.2
69°	21446.8	21885.4	24361.8	28536.7	32484.0	33450.8	32881.3	27877.7	20814.4	12350.5	5401.1
70°	20967.0	21410.4	24165.5	28507.7	32600.3	33366.0	32265.9	25864.1	17598.9	9030.9	3377.8
72.5°	17509.3	17892.1	21454.0	25767.1	30031.8	29409.1	26993.2	17918.8	8575.3	2459.4	760.9
75°	10777.9	10991.1	15393.9	19411.4	22682.6	21083.3	17984.2	8914.6	2556.4	695.4	421.6
77.5°	5694.3	5791.2	8427.5	11441.8	14378.6	11897.4	9217.4	3477.1	1177.6	436.2	305.3
80°	3365.7	3438.4	4538.4	5231.5	6222.5	5197.5	3685.5	2134.7	843.2	273.8	271.4
82.5°	1926.4	1972.4	3290.6	2907.7	2452.2	2093.6	1834.3	2023.3	506.4	184.2	281.1
85°	707.5	717.2	1851.2	2212.3	1458.7	867.5	911.1	1676.8	135.7	116.3	220.5
87.5°	329.5	322.3	952.3	1354.5	852.9	550.0	710.0	368.3	53.3	75.1	60.6
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°	6082.0	6082.0	6082.0	6082.0	6082.0	6082.0	6082.0	6082.0	6082.0	6082.0	6082.0
2.5°	6009.3	5919.6	5757.3	5590.1	5420.5	5289.6	5161.2	5059.4	5025.5	4962.5	4967.3
5°	5825.1	5660.3	5321.1	4977.0	4618.4	4322.8	4044.1	3818.8	3709.8	3598.3	3598.3
7.5°	5665.2	5425.3	4894.6	4334.9	3755.8	3268.7	2830.2	2500.6	2318.9	2173.5	2171.1
10°	5604.6	5279.9	4538.4	3736.4	2929.5	2265.6	1744.6	1410.2	1238.2	1126.7	1121.9
12.5°	5631.3	5229.0	4264.6	3183.9	2171.1	1456.3	1010.4	794.8	722.1	688.2	688.2
15°	5708.8	5214.5	3990.8	2643.6	1533.8	911.1	671.2	613.0	608.2	608.2	608.2
17.5°	5803.3	5219.3	3709.8	2117.8	1044.4	651.8	579.1	571.8	576.7	576.7	576.7
20°	5900.2	5221.8	3406.9	1630.7	736.6	567.0	545.2	542.8	547.6	547.6	550.0
22.5°	6019.0	5233.9	3104.0	1218.8	608.2	535.5	518.5	518.5	521.0	521.0	518.5
25°	6154.7	5258.1	2789.0	903.8	554.9	513.7	499.2	496.7	499.2	496.7	494.3
27.5°	6324.3	5292.0	2437.6	707.5	530.7	491.9	479.8	479.8	477.3	474.9	472.5
30°	6537.5	5330.8	2042.7	600.9	506.4	472.5	460.4	458.0	455.5	450.7	450.7
32.5°	6862.2	5415.6	1652.5	545.2	479.8	445.8	436.2	436.2	431.3	426.5	424.0
35°	7361.4	5582.8	1303.6	511.3	450.7	416.8	404.7	404.7	399.8	397.4	395.0
37.5°	8051.9	5837.2	1012.9	479.8	421.6	385.3	373.2	370.7	365.9	361.0	358.6
40°	8970.3	6152.2	797.2	450.7	392.5	353.8	344.1	339.2	329.5	322.3	322.3
42.5°	10123.7	6510.8	647.0	419.2	358.6	324.7	317.4	310.2	293.2	285.9	283.5
45°	11330.4	6833.1	547.6	382.8	324.7	295.6	290.8	278.7	256.8	249.6	249.6
47.5°	12200.3	6908.2	482.2	348.9	293.2	264.1	261.7	239.9	220.5	215.7	213.2
50°	12743.0	6760.4	428.9	315.0	264.1	235.0	227.8	201.1	189.0	184.2	181.7
52.5°	13108.9	6496.3	385.3	285.9	237.5	208.4	191.4	172.0	162.3	157.5	157.5
55°	13402.1	6123.2	341.7	259.3	215.7	186.6	162.3	147.8	138.1	133.3	133.3
57.5°	13484.5	5616.7	298.0	237.5	193.8	164.8	138.1	128.4	116.3	113.9	113.9
60°	12886.0	4703.2	264.1	210.8	174.5	143.0	121.2	109.0	96.9	94.5	92.1
62.5°	11308.6	3639.5	232.6	186.6	152.7	123.6	104.2	89.7	80.0	80.0	80.0
65°	8626.2	2440.1	203.5	162.3	133.3	104.2	89.7	72.7	67.8	67.8	70.3
67.5°	5163.6	1327.9	174.5	138.1	113.9	87.2	75.1	63.0	60.6	63.0	63.0
69°	3026.4	780.2	157.5	123.6	99.3	77.5	65.4	55.7	60.6	63.0	63.0
70°	1868.2	525.8	145.4	111.5	89.7	70.3	60.6	53.3	58.2	60.6	60.6
72.5°	521.0	271.4	116.3	87.2	72.7	58.2	48.5	48.5	55.7	58.2	58.2
75°	339.2	201.1	89.7	65.4	55.7	46.0	41.2	46.0	53.3	55.7	55.7
77.5°	281.1	164.8	72.7	53.3	46.0	43.6	38.8	41.2	48.5	50.9	50.9
80°	256.8	116.3	58.2	48.5	41.2	38.8	36.3	33.9	43.6	46.0	46.0
82.5°	244.7	92.1	50.9	43.6	38.8	33.9	31.5	33.9	38.8	41.2	43.6
85°	152.7	60.6	46.0	41.2	33.9	31.5	31.5	31.5	36.3	38.8	38.8
87.5°	55.7	48.5	41.2	33.9	29.1	29.1	29.1	29.1	31.5	36.3	36.3
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)