

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: P300891

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300891  
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  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 50388.4 lumens  
Efficiency: N/A  
Efficacy: 100.6 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

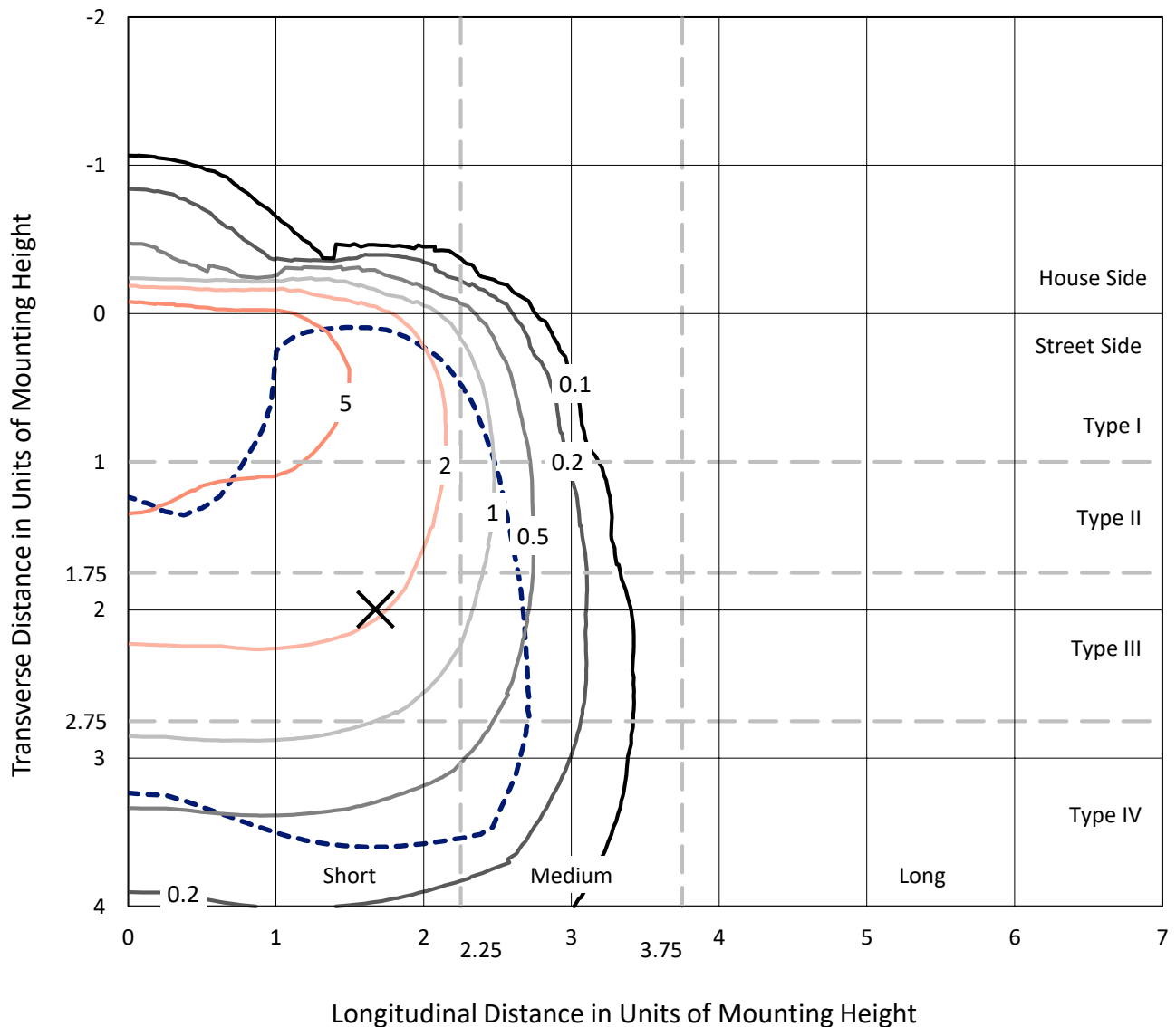
Input Watts (W): 501  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

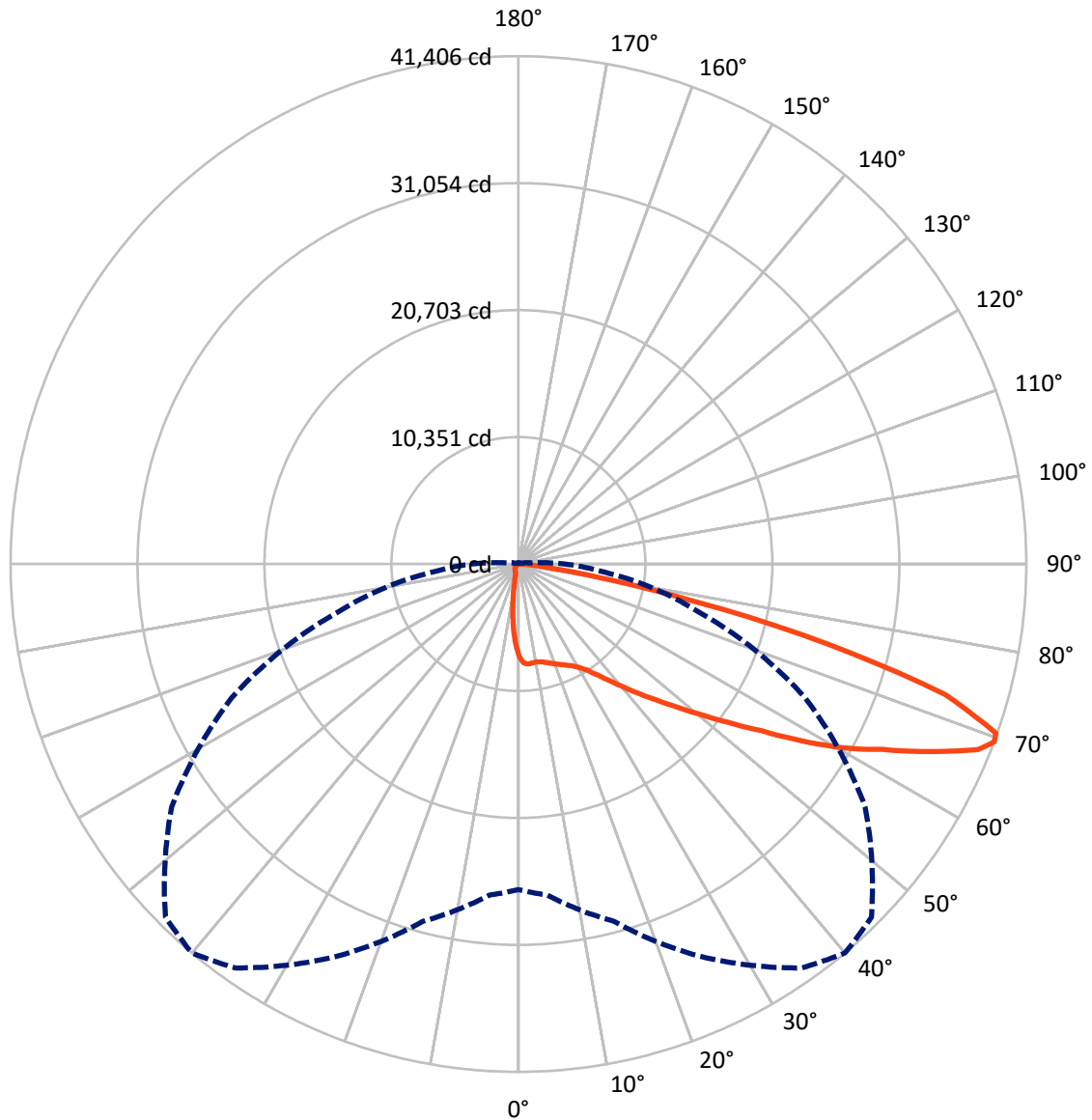


Based on 30 foot mounting height. Maximum calculated value = 9.2 fc  
 Type IV - Short - Semi-Cutoff

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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	2948.0	0.0	2948.0
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	47440.4	0.0	47440.4
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	50388.4	0.0	50388.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	610.4	1.2
10°-20°	1501.1	3.0
20°-30°	2528.3	5.0
30°-40°	4138.9	8.2
40°-50°	7166.5	14.2
50°-60°	11287.9	22.4
60°-70°	14741.5	29.3
70°-80°	7592.5	15.1
80°-90°	821.3	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°	50388.4	100.0
0°-180°	50388.4	100.0



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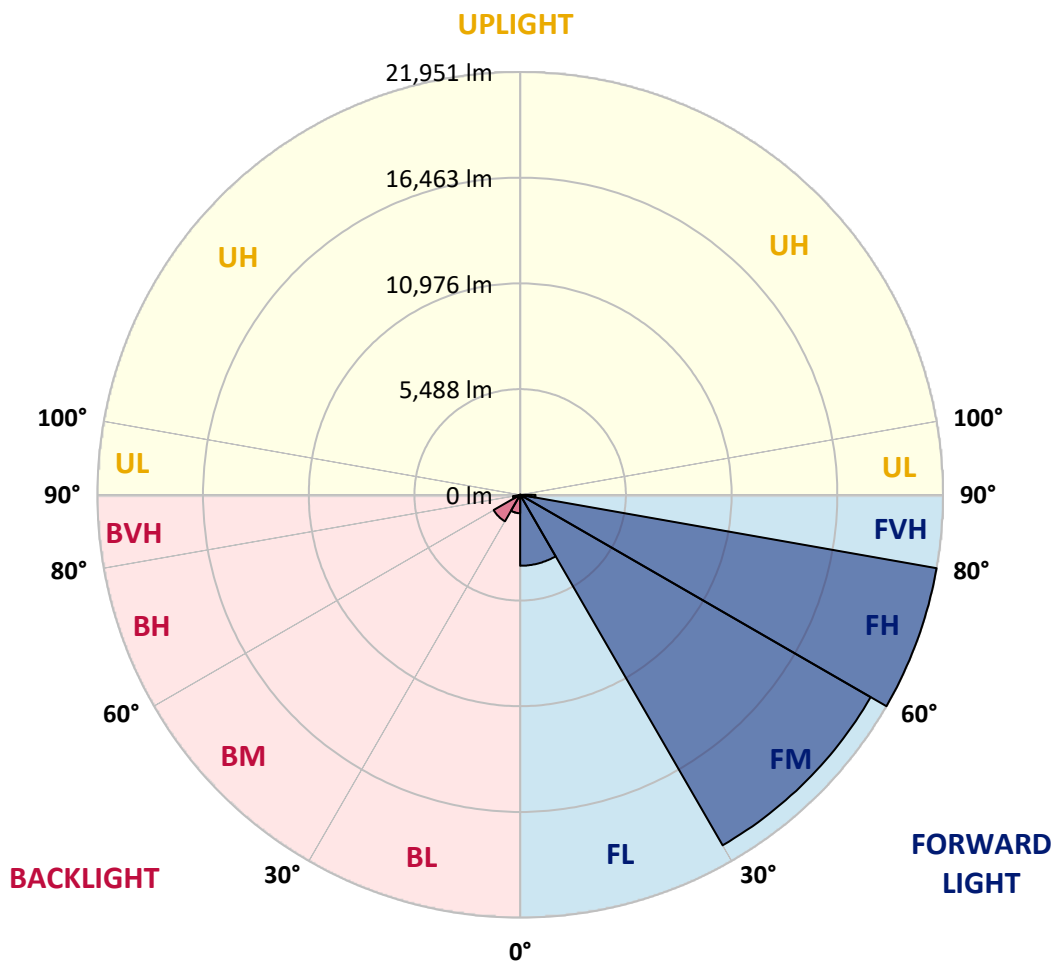
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3684.8	7.3			
FM	(30°-60°)	21008.8	41.7			
FH	(60°-80°)	21951.3	43.6			G5
FVH	(80°-90°)	795.5	1.6			G5
BL	(0°-30°)	954.9	1.9	B2/1000		
BM	(30°-60°)	1584.5	3.1	B2/2500		
BH	(60°-80°)	382.8	0.8	B1/500		G1/500
BVH	(80°-90°)	25.8	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°	7528.3	7528.3	7528.3	7528.3	7528.3	7528.3	7528.3	7528.3	7528.3	7528.3	7528.3
2.5°	8266.1	8221.1	8194.1	8158.1	8113.2	8074.2	8059.2	7948.2	7843.2	7699.2	7534.3
5°	8419.1	8404.1	8356.1	8308.1	8254.1	8194.1	8161.1	8029.2	7879.2	7669.3	7381.3
7.5°	8434.1	8416.1	8356.1	8290.1	8215.1	8143.1	8086.2	7954.2	7816.2	7603.3	7252.3
10°	8410.1	8389.1	8344.1	8272.1	8179.1	8110.2	8053.2	7927.2	7810.2	7618.3	7228.4
12.5°	8383.1	8362.1	8341.1	8305.1	8224.1	8176.1	8128.1	8008.2	7903.2	7741.2	7315.3
15°	8410.1	8398.1	8422.1	8407.1	8362.1	8320.1	8272.1	8164.1	8068.2	7933.2	7474.3
17.5°	8524.1	8524.1	8599.0	8608.0	8566.0	8506.1	8437.1	8329.1	8248.1	8134.1	7663.3
20°	8791.0	8782.0	8878.0	8896.0	8794.0	8701.0	8599.0	8467.1	8404.1	8332.1	7849.2
22.5°	9249.9	9207.9	9264.9	9246.9	9045.9	8902.0	8776.0	8614.0	8581.0	8548.1	8056.2
25°	9846.8	9822.8	9861.8	9684.8	9330.9	9135.9	8986.0	8803.0	8803.0	8836.0	8290.1
27.5°	10713.6	10623.6	10491.6	10179.7	9648.8	9399.9	9237.9	9042.9	9093.9	9216.9	8599.0
30°	11601.4	11502.4	11199.4	10719.6	10035.7	9774.8	9585.8	9381.9	9501.8	9726.8	9012.9
32.5°	12477.2	12366.2	11937.3	11331.4	10590.6	10329.6	10146.7	9921.7	10122.7	10500.6	9618.8
35°	13326.0	13227.0	12732.1	12018.3	11328.4	11112.5	10944.5	10749.6	11007.5	11535.4	10473.6
37.5°	14279.7	14171.8	13568.9	12795.1	12225.2	12069.3	11946.3	11751.3	12201.2	12975.0	11664.3
40°	15452.5	15269.5	14456.7	13685.9	13263.0	13188.0	13104.0	13077.0	13775.9	14846.6	13251.0
42.5°	16796.2	16496.2	15386.5	14624.7	14402.7	14456.7	14435.7	14555.7	15746.4	17174.1	15182.5
45°	18139.9	17753.0	16421.3	15626.4	15656.4	15845.4	15962.4	16442.3	18214.9	19843.5	17261.1
47.5°	19279.6	18898.7	17414.0	16709.2	17069.1	17441.0	17759.0	18667.7	20752.3	22470.9	18877.7
50°	20254.4	19894.5	18466.8	17899.9	18709.7	19309.6	19825.5	21172.2	23481.7	24471.4	20011.4
52.5°	21052.2	20812.3	19558.5	19264.6	20584.3	21463.1	22218.9	23832.6	25899.1	26097.1	20893.2
55°	21829.0	21658.1	20731.3	20887.2	22785.8	23982.5	24939.3	26654.9	27980.6	27452.7	21739.0
57.5°	22722.8	22566.9	22069.0	22944.8	25680.1	27185.8	28229.6	29156.4	29813.2	28838.4	22536.9
60°	23634.6	23544.6	23556.6	25230.3	29003.4	30449.1	31024.9	31264.9	31612.8	30143.1	22581.9
62.5°	24504.4	24675.4	25257.2	27773.7	32185.7	33295.4	33586.3	33823.3	33415.4	30350.1	20863.2
65°	25977.1	26256.0	27644.7	31177.9	35685.9	36873.6	37173.5	36360.7	33700.3	27674.7	16970.1
67.5°	26696.9	27206.8	29684.2	34351.2	39081.1	40400.8	40289.8	36525.7	30242.1	21103.2	10890.5
69°	26547.0	27089.8	30155.1	35323.0	40208.8	41405.6	40700.7	34507.1	25764.1	15287.5	6685.5
70°	25953.1	26502.0	29912.2	35287.0	40352.8	41300.6	39938.9	32014.7	21784.0	11178.5	4181.0
72.5°	21673.1	22147.0	26556.0	31894.7	37173.5	36402.7	33412.4	22179.9	10614.6	3044.3	941.8
75°	13341.0	13604.9	19054.7	24027.5	28076.6	26097.1	22260.9	11034.5	3164.3	860.8	521.9
77.5°	7048.4	7168.4	10431.6	14162.8	17797.9	14726.6	11409.4	4304.0	1457.7	539.9	377.9
80°	4166.1	4256.0	5617.7	6475.5	7702.2	6433.5	4562.0	2642.4	1043.8	338.9	335.9
82.5°	2384.5	2441.4	4073.1	3599.2	3035.3	2591.4	2270.5	2504.4	626.9	227.9	347.9
85°	875.8	887.8	2291.5	2738.4	1805.6	1073.8	1127.7	2075.5	168.0	144.0	272.9
87.5°	407.9	398.9	1178.7	1676.6	1055.8	680.8	878.8	455.9	66.0	93.0	75.0
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°	7528.3	7528.3	7528.3	7528.3	7528.3	7528.3	7528.3	7528.3	7528.3	7528.3	7528.3
2.5°	7438.3	7327.3	7126.4	6919.4	6709.5	6547.5	6388.5	6262.6	6220.6	6142.6	6148.6
5°	7210.4	7006.4	6586.5	6160.6	5716.7	5350.8	5005.9	4726.9	4592.0	4454.0	4454.0
7.5°	7012.4	6715.5	6058.6	5365.8	4648.9	4046.1	3503.2	3095.3	2870.3	2690.4	2687.4
10°	6937.4	6535.5	5617.7	4624.9	3626.2	2804.4	2159.5	1745.6	1532.7	1394.7	1388.7
12.5°	6970.4	6472.5	5278.8	3941.1	2687.4	1802.6	1250.7	983.8	893.8	851.8	851.8
15°	7066.4	6454.5	4939.9	3272.3	1898.6	1127.7	830.8	758.8	752.8	752.8	752.8
17.5°	7183.4	6460.5	4592.0	2621.4	1292.7	806.8	716.8	707.8	713.8	713.8	713.8
20°	7303.3	6463.5	4217.0	2018.5	911.8	701.8	674.8	671.8	677.8	677.8	680.8
22.5°	7450.3	6478.5	3842.1	1508.7	752.8	662.8	641.9	641.9	644.9	644.9	641.9
25°	7618.3	6508.5	3452.2	1118.7	686.8	635.9	617.9	614.9	617.9	614.9	611.9
27.5°	7828.2	6550.5	3017.3	875.8	656.9	608.9	593.9	593.9	590.9	587.9	584.9
30°	8092.2	6598.5	2528.4	743.8	626.9	584.9	569.9	566.9	563.9	557.9	557.9
32.5°	8494.1	6703.5	2045.5	674.8	593.9	551.9	539.9	539.9	533.9	527.9	524.9
35°	9111.9	6910.4	1613.6	632.9	557.9	515.9	500.9	500.9	494.9	491.9	488.9
37.5°	9966.7	7225.4	1253.7	593.9	521.9	476.9	461.9	458.9	452.9	446.9	443.9
40°	11103.5	7615.3	986.8	557.9	485.9	437.9	425.9	419.9	407.9	398.9	398.9
42.5°	12531.1	8059.2	800.8	518.9	443.9	401.9	392.9	383.9	362.9	353.9	350.9
45°	14024.8	8458.1	677.8	473.9	401.9	365.9	359.9	344.9	317.9	308.9	308.9
47.5°	15101.6	8551.1	596.9	431.9	362.9	326.9	323.9	296.9	272.9	266.9	263.9
50°	15773.4	8368.1	530.9	389.9	326.9	290.9	281.9	248.9	233.9	227.9	224.9
52.5°	16226.3	8041.2	476.9	353.9	293.9	257.9	236.9	213.0	201.0	195.0	195.0
55°	16589.2	7579.3	422.9	320.9	266.9	230.9	201.0	183.0	171.0	165.0	165.0
57.5°	16691.2	6952.4	368.9	293.9	239.9	204.0	171.0	159.0	144.0	141.0	141.0
60°	15950.4	5821.7	326.9	260.9	216.0	177.0	150.0	135.0	120.0	117.0	114.0
62.5°	13997.8	4505.0	287.9	230.9	189.0	153.0	129.0	111.0	99.0	99.0	99.0
65°	10677.6	3020.3	251.9	201.0	165.0	129.0	111.0	90.0	84.0	84.0	87.0
67.5°	6391.5	1643.6	216.0	171.0	141.0	108.0	93.0	78.0	75.0	78.0	78.0
69°	3746.1	965.8	195.0	153.0	123.0	96.0	81.0	69.0	75.0	78.0	78.0
70°	2312.5	650.9	180.0	138.0	111.0	87.0	75.0	66.0	72.0	75.0	75.0
72.5°	644.9	335.9	144.0	108.0	90.0	72.0	60.0	60.0	69.0	72.0	72.0
75°	419.9	248.9	111.0	81.0	69.0	57.0	51.0	57.0	66.0	69.0	69.0
77.5°	347.9	204.0	90.0	66.0	57.0	54.0	48.0	51.0	60.0	63.0	63.0
80°	317.9	144.0	72.0	60.0	51.0	48.0	45.0	42.0	54.0	57.0	57.0
82.5°	302.9	114.0	63.0	54.0	48.0	42.0	39.0	42.0	48.0	51.0	54.0
85°	189.0	75.0	57.0	51.0	42.0	39.0	39.0	39.0	45.0	48.0	48.0
87.5°	69.0	60.0	51.0	42.0	36.0	36.0	36.0	36.0	39.0	45.0	45.0
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)