

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: P453705

Luminaire Tested: **GALN-SA4D-730-U-SL2-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453705  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4D-730-U-SL2-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22810 lumens  
Efficiency: N/A  
Efficacy: 93.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G4

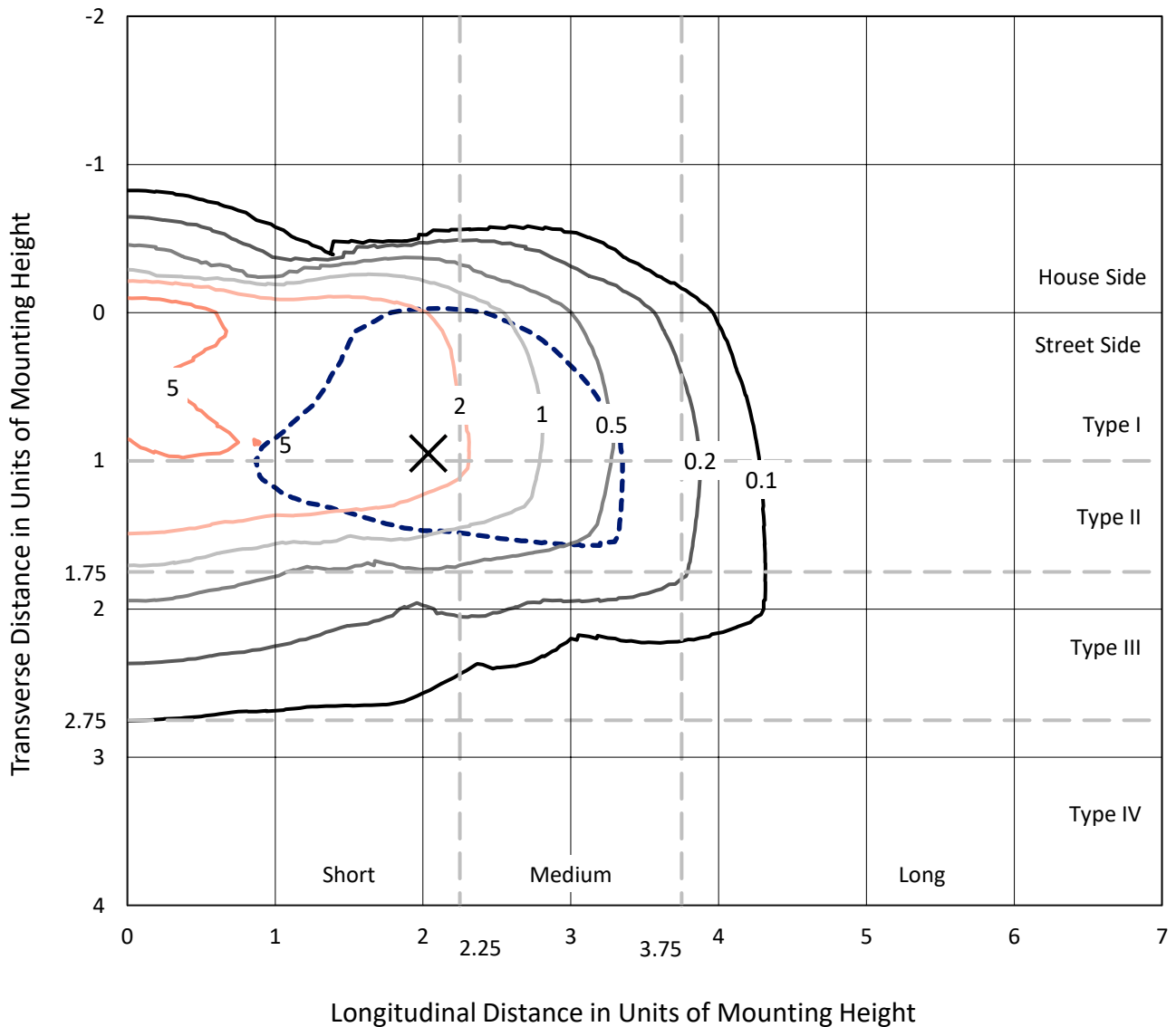
Input Watts (W): 245  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

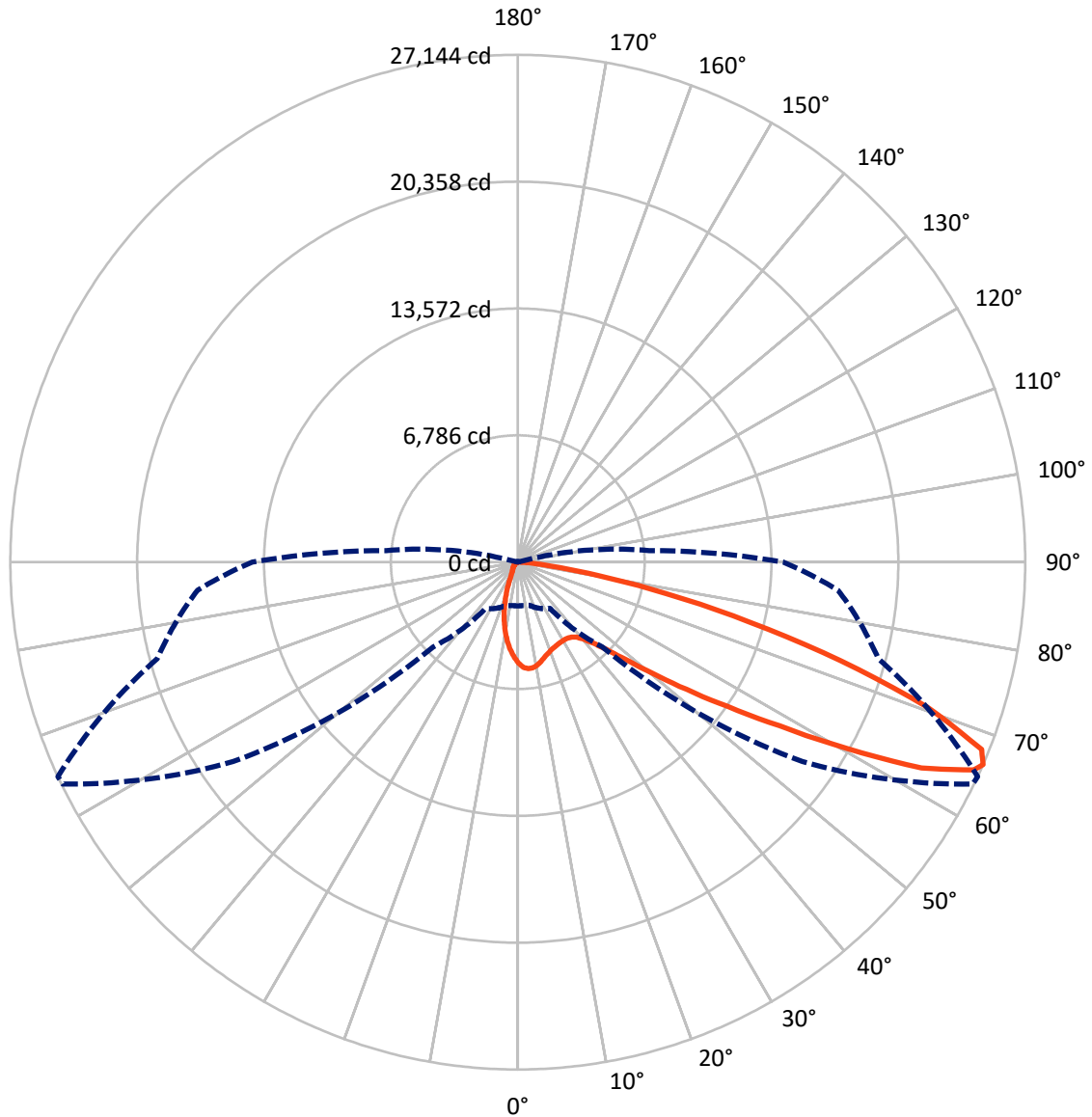
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.7 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral    - - - Horizontal Cone Through 66-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2358.9	0.0	2358.9
	% Fixture	10.3	0.0	10.3
<b>Street Side</b>	Lumens	20451.1	0.0	20451.1
	% Fixture	89.7	0.0	89.7
<b>Total</b>	Lumens	22810.0	0.0	22810.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	442.4	1.9
10°-20°	963.9	4.2
20°-30°	1380.8	6.1
30°-40°	2016.7	8.8
40°-50°	3381.7	14.8
50°-60°	5643.5	24.7
60°-70°	5990.4	26.3
70°-80°	2713.0	11.9
80°-90°	277.6	1.2
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°	22810.0	100.0
0°-180°	22810.0	100.0

**Coefficient of Utilization**



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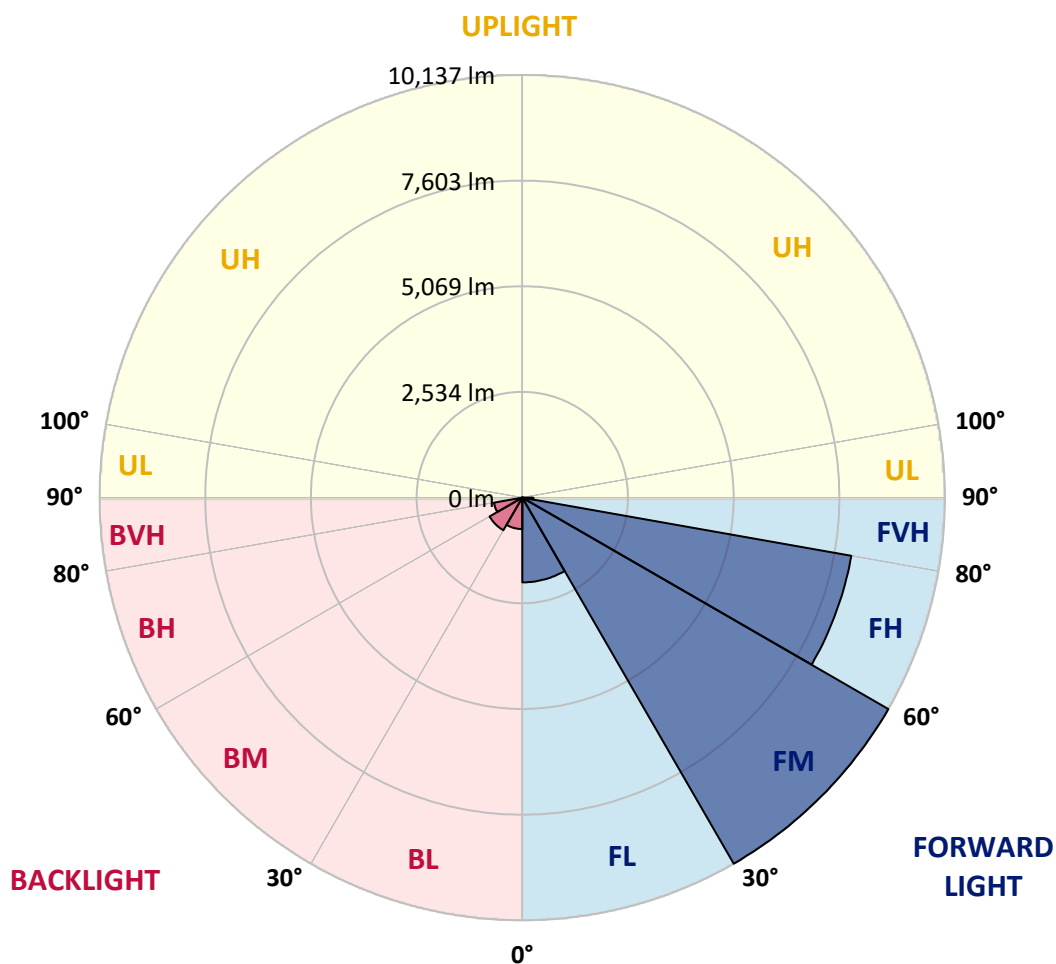
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2032.5	8.9			
FM	(30°-60°)	10137.3	44.4			
FH	(60°-80°)	8012.6	35.1			G4/12000
FVH	(80°-90°)	268.8	1.2			G3/500
BL	(0°-30°)	754.6	3.3	B2/1000		
BM	(30°-60°)	904.6	4.0	B1/1000		
BH	(60°-80°)	690.8	3.0	B2/1000		G2/1000
BVH	(80°-90°)	8.8	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-G4**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	64°	65°	75°	85°
0°	5409.1	5409.1	5409.1	5409.1	5409.1	5409.1	5409.1	5409.1	5409.1	5409.1	5409.1
2.5°	5700.3	5706.4	5714.1	5724.9	5732.6	5709.5	5677.2	5640.2	5632.5	5553.9	5458.4
5°	5395.2	5404.5	5472.3	5509.2	5592.4	5667.9	5715.7	5721.8	5718.8	5644.8	5492.3
7.5°	4960.8	4987.0	5053.2	5117.9	5273.5	5416.8	5586.3	5704.9	5712.6	5692.6	5503.1
10°	4608.0	4624.9	4658.8	4786.7	4916.1	5134.9	5372.1	5595.5	5614.0	5694.1	5493.8
12.5°	4332.2	4356.9	4398.5	4497.0	4652.7	4859.1	5128.7	5429.1	5467.6	5664.8	5467.6
15°	4139.6	4152.0	4193.5	4290.6	4441.6	4632.6	4905.3	5255.0	5288.9	5626.3	5463.0
17.5°	4048.7	4062.6	4091.9	4168.9	4293.7	4470.9	4737.4	5114.8	5158.0	5601.7	5480.0
20°	4073.4	4085.7	4087.2	4127.3	4212.0	4361.5	4614.1	4983.9	5039.3	5586.3	5507.7
22.5°	4213.6	4215.1	4196.6	4178.1	4207.4	4315.3	4538.6	4900.7	4957.7	5583.2	5540.0
25°	4423.1	4427.7	4396.9	4332.2	4273.7	4329.1	4521.7	4846.8	4897.6	5575.5	5560.1
27.5°	4712.7	4711.2	4702.0	4594.1	4427.7	4390.7	4535.6	4817.5	4860.6	5553.9	5567.8
30°	5117.9	5105.6	5085.6	4963.9	4709.7	4540.2	4594.1	4799.0	4839.1	5523.1	5547.7
32.5°	5516.9	5563.2	5560.1	5444.5	5127.2	4806.7	4715.8	4823.7	4852.9	5503.1	5518.5
35°	5982.2	5980.7	6099.3	6056.1	5684.9	5147.2	4923.8	4905.3	4928.4	5516.9	5504.6
37.5°	6413.6	6453.6	6638.5	6683.2	6344.2	5627.9	5218.1	5080.9	5088.6	5610.9	5538.5
40°	6951.2	7028.3	7304.0	7453.5	7154.6	6341.2	5652.5	5402.9	5404.5	5842.0	5666.4
42.5°	7644.5	7766.2	8023.5	8273.1	8112.9	7185.4	6304.2	5912.9	5909.8	6248.7	5959.1
45°	8487.2	8572.0	8864.7	9260.6	9158.9	8364.0	7253.2	6703.2	6663.2	6915.8	6478.3
47.5°	9214.4	9330.0	9627.3	10078.7	10540.9	9802.9	8387.1	7789.3	7763.1	7977.3	7368.8
50°	9531.8	9633.5	9946.2	10579.4	11699.4	11691.7	10075.6	9374.6	9330.0	9445.5	8746.1
52.5°	9183.6	9279.1	9594.9	10383.7	12244.8	13993.4	12522.1	11363.6	11309.6	11161.7	10391.4
55°	7991.2	8069.7	8536.5	9442.4	12035.3	15527.8	15893.0	13820.8	13611.3	13036.7	12254.0
57.5°	6362.7	6322.7	6612.3	7664.5	10805.9	16042.4	19353.2	16882.0	16507.7	14657.4	13830.1
60°	4409.2	4532.5	4649.6	5342.8	8125.2	15150.4	21505.4	20730.5	20237.5	16251.9	15339.9
62.5°	3241.4	3323.1	3400.1	3720.6	5108.7	12096.9	21885.9	24683.7	24246.2	17945.1	16780.4
65°	2563.6	2569.7	2600.6	2916.4	3366.2	7866.4	20057.2	26913.0	26800.5	19575.0	17364.2
66°	2335.6	2337.1	2384.9	2723.8	3021.1	6405.9	18592.1	27082.4	27144.1	19966.3	17193.2
67.5°	2041.3	2035.1	2104.5	2448.0	2751.5	4618.8	15970.0	26395.3	26760.4	20266.8	16578.5
70°	1582.2	1574.5	1659.2	2053.6	2534.3	3081.2	10614.8	22664.0	23252.5	19652.1	14668.2
72.5°	1053.8	1059.9	1204.8	1620.7	2418.8	2713.0	6385.8	17241.0	18072.9	16228.8	11539.2
75°	614.7	625.5	790.3	1204.8	2099.9	2586.7	3614.3	12294.1	12825.6	11206.4	7188.5
77.5°	322.0	326.6	442.2	795.0	1609.9	2401.8	2408.0	7854.0	8103.6	5446.1	2845.5
80°	171.0	166.4	237.3	479.1	1107.7	2109.1	1953.5	4158.1	4323.0	1617.6	719.5
82.5°	64.7	70.9	126.3	314.3	654.8	1514.4	1682.3	1838.0	1780.9	355.9	302.0
85°	12.3	15.4	53.9	186.4	329.7	633.2	1240.2	901.3	835.0	134.0	174.1
87.5°	1.5	3.1	15.4	44.7	47.8	214.1	366.7	249.6	215.7	49.3	72.4
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°	5409.1	5409.1	5409.1	5409.1	5409.1	5409.1	5409.1	5409.1	5409.1	5409.1	5409.1
2.5°	5412.2	5370.6	5231.9	5094.8	4954.6	4828.3	4742.0	4601.8	4566.4	4515.5	4486.3
5°	5401.4	5304.3	5037.8	4746.6	4475.5	4182.8	3959.4	3743.7	3628.1	3569.6	3548.0
7.5°	5370.6	5216.5	4800.6	4344.5	3910.1	3472.5	3092.0	2802.4	2616.0	2488.1	2401.8
10°	5309.0	5096.3	4524.8	3897.8	3241.4	2663.7	2181.5	1814.8	1531.4	1442.0	1445.1
12.5°	5245.8	4962.3	4216.7	3401.7	2588.2	1859.5	1348.0	1058.4	922.8	878.1	868.9
15°	5187.2	4834.4	3914.7	2921.0	1927.3	1204.8	868.9	767.2	730.3	722.5	721.0
17.5°	5156.4	4715.8	3592.7	2371.0	1345.0	818.1	696.4	668.6	657.8	650.1	647.1
20°	5130.2	4612.6	3284.6	1856.4	919.7	670.2	623.9	597.8	579.3	571.6	566.9
22.5°	5111.8	4506.3	2965.7	1437.4	704.1	594.7	553.1	519.2	493.0	483.8	477.6
25°	5084.0	4389.2	2643.7	1050.7	593.1	528.4	480.7	440.6	406.7	389.8	386.7
27.5°	5044.0	4256.7	2290.9	778.0	530.0	469.9	411.3	362.0	328.2	309.7	311.2
30°	4979.3	4118.1	1938.1	617.8	479.1	409.8	346.6	298.9	266.5	252.7	251.1
32.5°	4902.2	3950.1	1614.6	530.0	432.9	355.9	289.6	248.0	223.4	212.6	211.1
35°	4829.8	3780.7	1284.9	476.0	385.2	306.6	243.4	208.0	189.5	180.3	181.8
37.5°	4789.8	3629.7	1001.4	432.9	346.6	263.4	209.5	178.7	161.8	154.1	152.5
40°	4816.0	3506.4	796.5	394.4	303.5	226.5	180.3	154.1	137.1	126.3	126.3
42.5°	4939.2	3452.5	642.4	357.4	263.4	195.7	157.1	132.5	114.0	103.2	104.8
45°	5315.1	3509.5	537.7	323.5	226.5	169.5	135.6	109.4	92.4	84.7	83.2
47.5°	5939.1	3723.7	465.3	288.1	194.1	144.8	114.0	90.9	73.9	67.8	66.2
50°	7029.8	4165.8	411.3	252.7	164.8	123.2	94.0	72.4	58.5	52.4	52.4
52.5°	8530.4	5130.2	372.8	212.6	138.7	104.8	77.0	58.5	46.2	41.6	40.1
55°	10098.7	6147.0	352.8	178.7	115.5	86.3	61.6	46.2	35.4	30.8	29.3
57.5°	11607.0	6945.1	329.7	144.8	92.4	66.2	47.8	35.4	24.6	21.6	20.0
60°	13053.6	7590.6	280.4	115.5	72.4	47.8	35.4	24.6	16.9	13.9	13.9
62.5°	14347.7	7966.5	220.3	92.4	55.5	33.9	23.1	18.5	12.3	9.2	9.2
65°	14498.7	7478.1	166.4	70.9	40.1	21.6	13.9	13.9	9.2	6.2	6.2
66°	14195.2	7063.7	146.4	64.7	35.4	18.5	12.3	10.8	7.7	4.6	4.6
67.5°	13517.3	6356.6	126.3	55.5	29.3	13.9	9.2	9.2	6.2	3.1	3.1
70°	11679.4	5191.9	100.1	41.6	21.6	10.8	6.2	6.2	4.6	3.1	3.1
72.5°	8901.7	3876.2	81.7	30.8	15.4	7.7	4.6	4.6	4.6	3.1	3.1
75°	5369.0	2087.5	63.2	23.1	13.9	6.2	3.1	4.6	6.2	4.6	3.1
77.5°	1978.1	710.2	49.3	18.5	10.8	6.2	3.1	3.1	6.2	4.6	4.6
80°	485.3	184.9	35.4	15.4	10.8	6.2	3.1	3.1	6.2	6.2	6.2
82.5°	224.9	78.6	24.6	13.9	10.8	6.2	3.1	3.1	4.6	6.2	6.2
85°	129.4	37.0	20.0	15.4	10.8	6.2	3.1	3.1	4.6	6.2	6.2
87.5°	52.4	18.5	18.5	15.4	12.3	7.7	3.1	3.1	3.1	4.6	4.6
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)