

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: P454681

Luminaire Tested: **GALN-SA5D-740-U-T4FT-HSS**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P454681  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA5D-740-U-T4FT-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 27897 lumens  
Efficiency: N/A  
Efficacy: 90.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G5

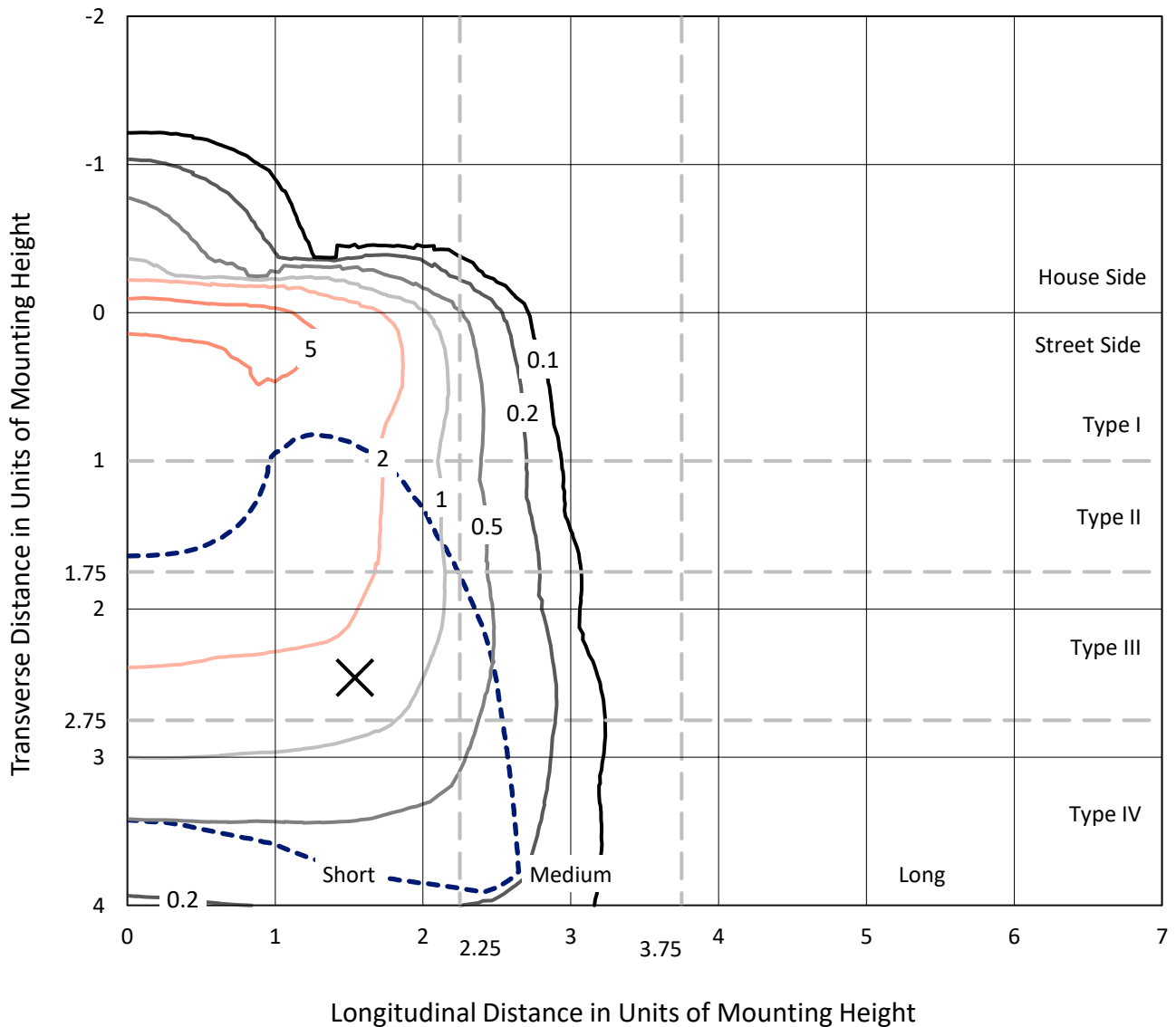
Input Watts (W): 309  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

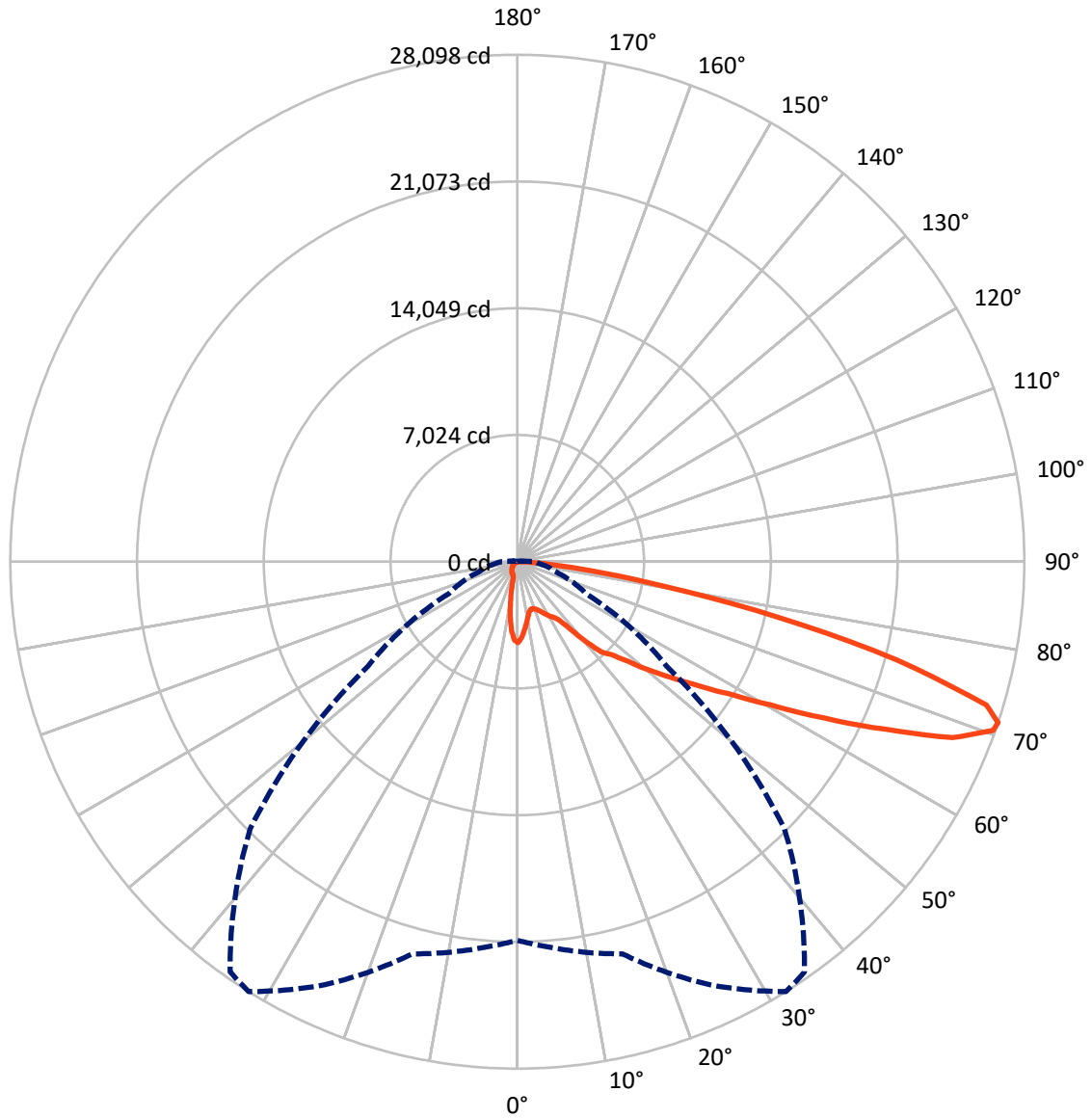
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2336.7	0.0	2336.7
	% Fixture	8.4	0.0	8.4
<b>Street Side</b>	Lumens	25560.3	0.0	25560.3
	% Fixture	91.6	0.0	91.6
<b>Total</b>	Lumens	27897.0	0.0	27897.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	364.8	1.3
10°-20°	791.7	2.8
20°-30°	1231.7	4.4
30°-40°	2052.0	7.4
40°-50°	3817.0	13.7
50°-60°	6128.3	22.0
60°-70°	8242.9	29.5
70°-80°	4890.6	17.5
80°-90°	378.0	1.4
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°	27897.0	100.0
0°-180°	27897.0	100.0



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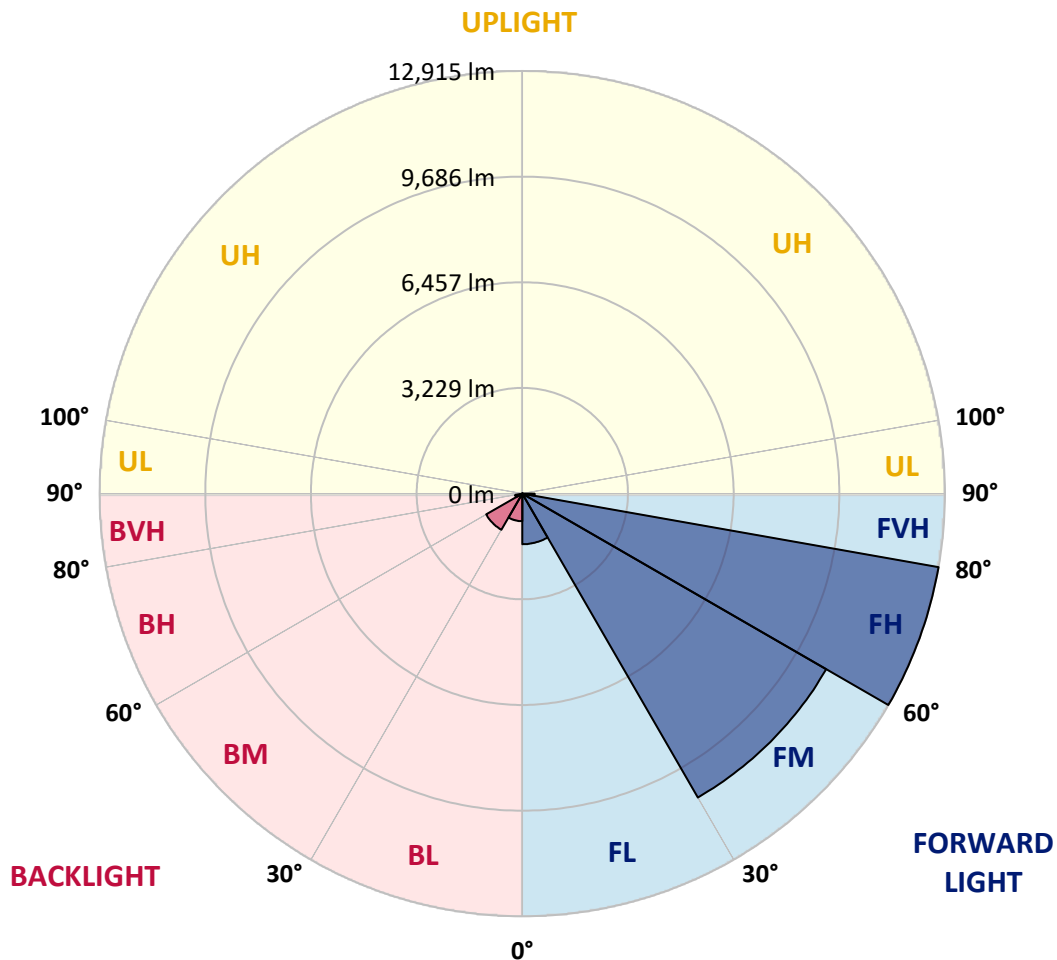
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1546.2	5.5			
FM (30°-60°)	10722.6	38.4			
FH (60°-80°)	12915.0	46.3			G5
FVH (80°-90°)	376.6	1.3			G3/500
BL (0°-30°)	842.0	3.0	B2/1000		
BM (30°-60°)	1274.7	4.6	B2/2500		
BH (60°-80°)	218.5	0.8	B1/500		G1/500
BVH (80°-90°)	1.5	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-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	4486.3	4486.3	4486.3	4486.3	4486.3	4486.3	4486.3	4486.3	4486.3	4486.3	4486.3
2.5°	4160.8	4203.6	4197.2	4212.2	4248.6	4263.6	4304.3	4349.2	4411.3	4454.2	4482.0
5°	3726.1	3758.2	3762.5	3837.4	3873.8	3914.5	4034.4	4165.1	4310.7	4426.3	4503.4
7.5°	3261.4	3278.5	3312.8	3411.3	3503.4	3544.0	3726.1	3953.1	4182.2	4398.5	4537.7
10°	2878.1	2897.3	2959.4	3064.4	3150.0	3203.6	3456.3	3741.1	4062.3	4383.5	4586.9
12.5°	2659.6	2670.3	2693.9	2788.1	2897.3	2955.2	3227.1	3552.6	3965.9	4389.9	4670.4
15°	2644.7	2640.4	2612.5	2651.1	2749.6	2809.5	3075.1	3424.1	3880.3	4411.3	4768.9
17.5°	2723.9	2713.2	2646.8	2646.8	2728.2	2777.4	3010.8	3355.6	3837.4	4460.6	4908.1
20°	2845.9	2828.8	2719.6	2711.0	2790.3	2841.7	3049.4	3359.9	3846.0	4552.7	5094.4
22.5°	3000.1	2980.9	2816.0	2820.2	2905.9	2957.3	3160.7	3437.0	3899.5	4666.2	5293.6
25°	3201.4	3180.0	2985.1	2976.6	3066.5	3111.5	3325.6	3574.0	3974.5	4807.5	5554.8
27.5°	3469.1	3424.1	3190.7	3177.9	3274.2	3332.0	3524.8	3758.2	4107.2	5002.4	5906.0
30°	3689.7	3640.4	3417.7	3383.4	3486.2	3531.2	3730.4	4006.6	4368.5	5342.8	6392.1
32.5°	3978.8	3905.9	3644.7	3554.8	3664.0	3721.8	4028.0	4469.1	4756.1	5702.6	6970.3
35°	4629.7	4584.8	4265.7	3950.9	3944.5	4017.3	4467.0	4936.0	5154.4	6263.7	7758.4
37.5°	5561.3	5529.1	5190.8	4768.9	4646.9	4612.6	5000.2	5449.9	5790.4	7034.6	8674.9
40°	6642.7	6567.7	6257.2	5899.6	5741.1	5640.5	5629.8	6214.4	6621.3	8081.7	9630.0
42.5°	7417.9	7280.8	6903.9	6878.2	6844.0	6739.0	6435.0	7332.2	7694.1	9208.1	10651.4
45°	8231.6	8023.9	7462.8	7366.5	7353.6	7347.2	7651.3	8655.6	8863.3	10428.7	11700.7
47.5°	8863.3	8698.4	8238.0	8195.2	8248.7	8394.4	9259.5	10060.4	10017.6	11516.6	12580.8
50°	9704.9	9580.7	9068.9	9150.3	9426.5	9664.2	11073.3	11591.5	10966.2	12373.1	13221.1
52.5°	10698.5	10469.4	9994.0	10214.6	10638.6	11034.7	12998.4	12932.0	11632.2	13017.7	13698.7
55°	11559.4	11396.6	11233.9	11463.0	12096.9	12591.5	14737.2	13936.4	12116.2	13535.9	13908.5
57.5°	13015.5	12977.0	12810.0	13043.4	13812.2	14326.1	16294.1	14715.8	12426.7	13805.7	13662.3
60°	15169.8	15107.7	14797.2	15094.9	16097.0	16904.4	17728.8	15416.1	12497.3	13700.8	12953.4
62.5°	17760.9	17548.9	17283.4	17722.4	19097.2	19452.7	19080.0	15831.5	12233.9	12865.6	11244.6
65°	20180.7	19962.3	19968.7	20893.8	22390.7	22632.7	20656.1	15769.4	11463.0	10773.5	8293.7
67.5°	22033.1	21996.7	22257.9	24063.1	26020.4	25853.4	22065.2	14840.0	9178.1	6983.2	4407.0
70°	22127.3	22198.0	22947.4	25994.7	27981.9	27716.4	21945.3	12062.6	5721.9	3212.1	1736.7
71°	20988.1	21463.4	22499.9	25934.7	28097.6	27752.8	20934.5	10103.2	4197.2	2239.9	1252.7
72.5°	17885.1	18135.7	20375.6	24407.9	27183.2	26446.5	18371.2	7081.7	2687.5	1370.5	719.5
75°	9850.5	10467.3	13645.1	19148.6	21741.8	21095.1	11972.7	3364.2	1340.5	749.5	297.7
77.5°	4689.7	4569.8	6657.7	11388.1	14741.5	14707.3	6032.4	1494.7	781.6	507.5	149.9
80°	1340.5	1507.6	2548.3	5413.5	8184.5	8274.4	2317.0	721.7	541.8	396.2	77.1
82.5°	404.7	413.3	935.8	2394.1	4070.8	3837.4	869.4	368.3	389.7	314.8	45.0
85°	70.7	87.8	276.2	843.7	1552.5	1177.8	218.4	175.6	257.0	207.7	25.7
87.5°	4.3	6.4	92.1	96.4	137.1	79.2	38.5	25.7	55.7	55.7	15.0
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°	4486.3	4486.3	4486.3	4486.3	4486.3	4486.3	4486.3	4486.3	4486.3	4486.3	4486.3
2.5°	4501.3	4514.1	4505.5	4486.3	4454.2	4415.6	4364.2	4321.4	4285.0	4265.7	4289.3
5°	4529.1	4546.2	4503.4	4407.0	4261.4	4103.0	3923.1	3783.9	3674.7	3640.4	3627.6
7.5°	4571.9	4582.6	4467.0	4252.9	3944.5	3569.7	3242.1	2965.9	2751.7	2687.5	2593.3
10°	4627.6	4621.2	4402.8	4004.5	3462.7	2899.5	2392.0	2015.1	1730.3	1627.5	1618.9
12.5°	4713.3	4679.0	4321.4	3666.1	2888.8	2152.1	1524.7	1192.8	1012.9	952.9	940.1
15°	4820.3	4739.0	4192.9	3269.9	2212.1	1389.8	940.1	839.4	815.9	811.6	807.3
17.5°	4946.7	4818.2	4023.7	2783.8	1554.7	901.5	785.9	783.8	785.9	781.6	779.5
20°	5118.0	4901.7	3822.4	2207.8	1027.9	760.2	749.5	749.5	751.6	749.5	749.5
22.5°	5300.0	5000.2	3574.0	1685.3	775.2	721.7	719.5	723.8	728.1	725.9	725.9
25°	5524.9	5128.7	3246.4	1154.2	693.8	689.5	691.7	700.2	708.8	711.0	708.8
27.5°	5850.4	5287.2	2895.2	794.5	636.0	640.3	661.7	683.1	696.0	698.1	698.1
30°	6216.5	5462.8	2436.9	644.6	588.9	588.9	614.6	655.3	683.1	687.4	689.5
32.5°	6687.7	5666.2	1929.4	580.3	543.9	539.6	563.2	612.4	663.8	678.8	678.8
35°	7270.1	5906.0	1434.8	539.6	511.8	501.1	513.9	554.6	621.0	663.8	668.1
37.5°	7953.2	6133.0	1049.3	503.2	481.8	466.8	475.4	507.5	561.1	625.3	642.4
40°	8584.9	6334.3	783.8	473.3	451.8	441.1	447.6	462.5	507.5	567.5	578.2
42.5°	9274.5	6490.6	623.2	441.1	421.9	417.6	417.6	424.0	454.0	488.2	490.4
45°	9961.9	6546.3	522.5	402.6	389.7	394.0	391.9	387.6	400.4	396.2	396.2
47.5°	10452.3	6479.9	432.6	366.2	366.2	372.6	361.9	346.9	340.5	314.8	316.9
50°	10788.5	6238.0	355.5	323.4	340.5	349.1	327.6	304.1	280.5	252.7	246.3
52.5°	10927.7	5807.5	291.2	267.7	301.9	312.6	287.0	259.1	222.7	199.2	192.7
55°	10837.7	5276.5	242.0	218.4	254.8	267.7	242.0	209.9	169.2	143.5	139.2
57.5°	10441.6	4642.6	205.6	173.5	203.4	212.0	194.9	160.6	119.9	94.2	94.2
60°	9756.3	3987.3	167.0	137.1	152.0	164.9	147.8	115.6	81.4	57.8	53.5
62.5°	8366.5	3237.8	134.9	107.1	107.1	117.8	102.8	83.5	51.4	30.0	27.8
65°	6040.9	2220.7	107.1	79.2	77.1	77.1	64.2	55.7	30.0	12.8	8.6
67.5°	3282.8	1252.7	85.7	60.0	53.5	51.4	40.7	32.1	12.8	2.1	0.0
70°	1291.3	481.8	66.4	40.7	34.3	32.1	21.4	15.0	8.6	0.0	0.0
71°	875.8	331.9	57.8	34.3	27.8	23.6	17.1	12.8	6.4	0.0	0.0
72.5°	501.1	205.6	45.0	25.7	21.4	17.1	12.8	8.6	6.4	0.0	0.0
75°	218.4	104.9	27.8	19.3	15.0	10.7	8.6	6.4	2.1	0.0	0.0
77.5°	111.4	57.8	19.3	15.0	8.6	6.4	4.3	2.1	0.0	0.0	0.0
80°	62.1	30.0	12.8	8.6	6.4	4.3	2.1	2.1	0.0	0.0	0.0
82.5°	34.3	17.1	6.4	4.3	2.1	0.0	0.0	0.0	0.0	0.0	0.0
85°	21.4	10.7	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	10.7	4.3	0.0	0.0	0.0	0.0	2.1	2.1	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)