

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: P459074

Luminaire Tested: **GALN-SA5D-735-U-SL4-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P459074
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-19)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA5D-735-U-SL4-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 3500K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29686 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G5

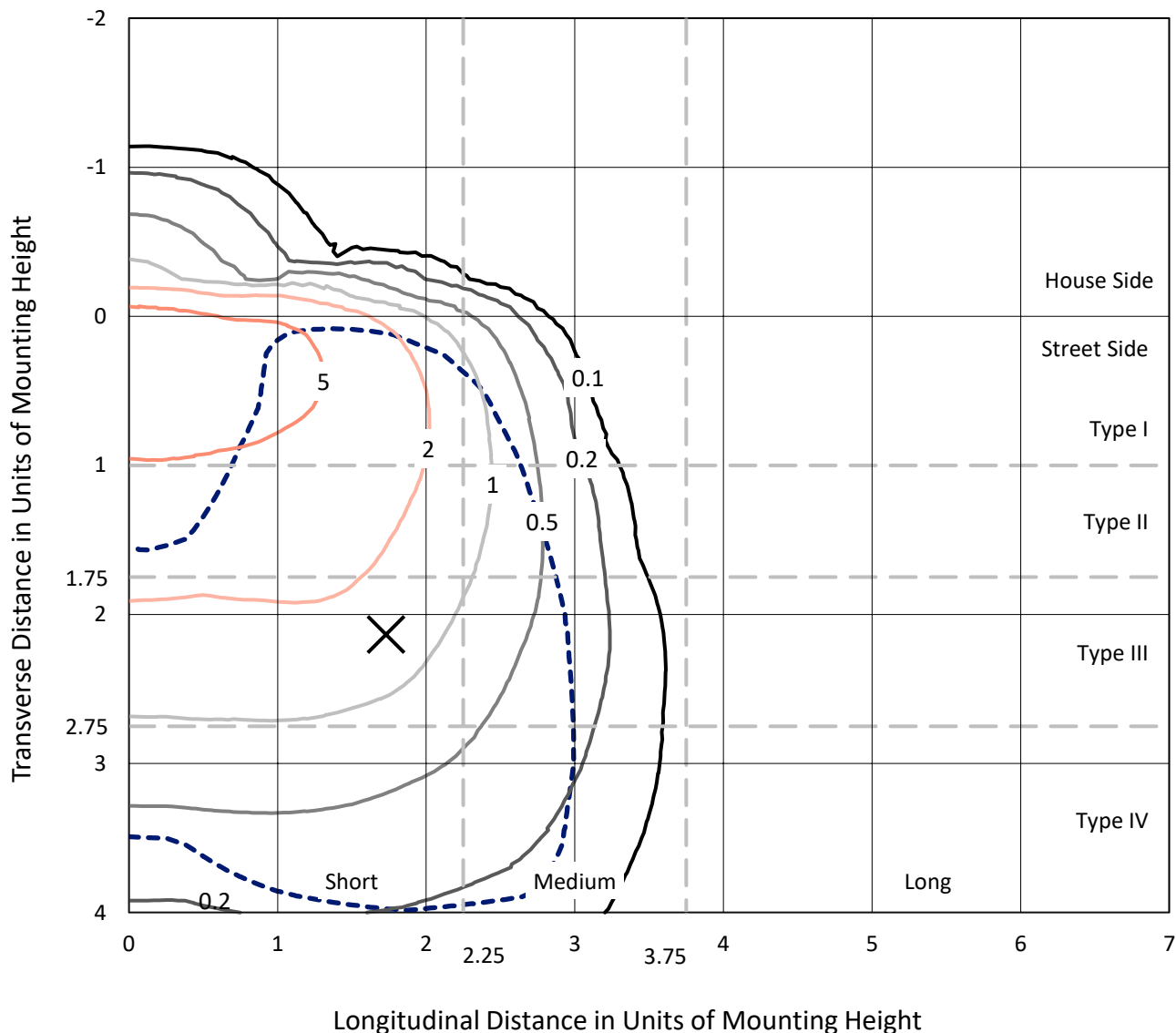
Input Watts (W): 309
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

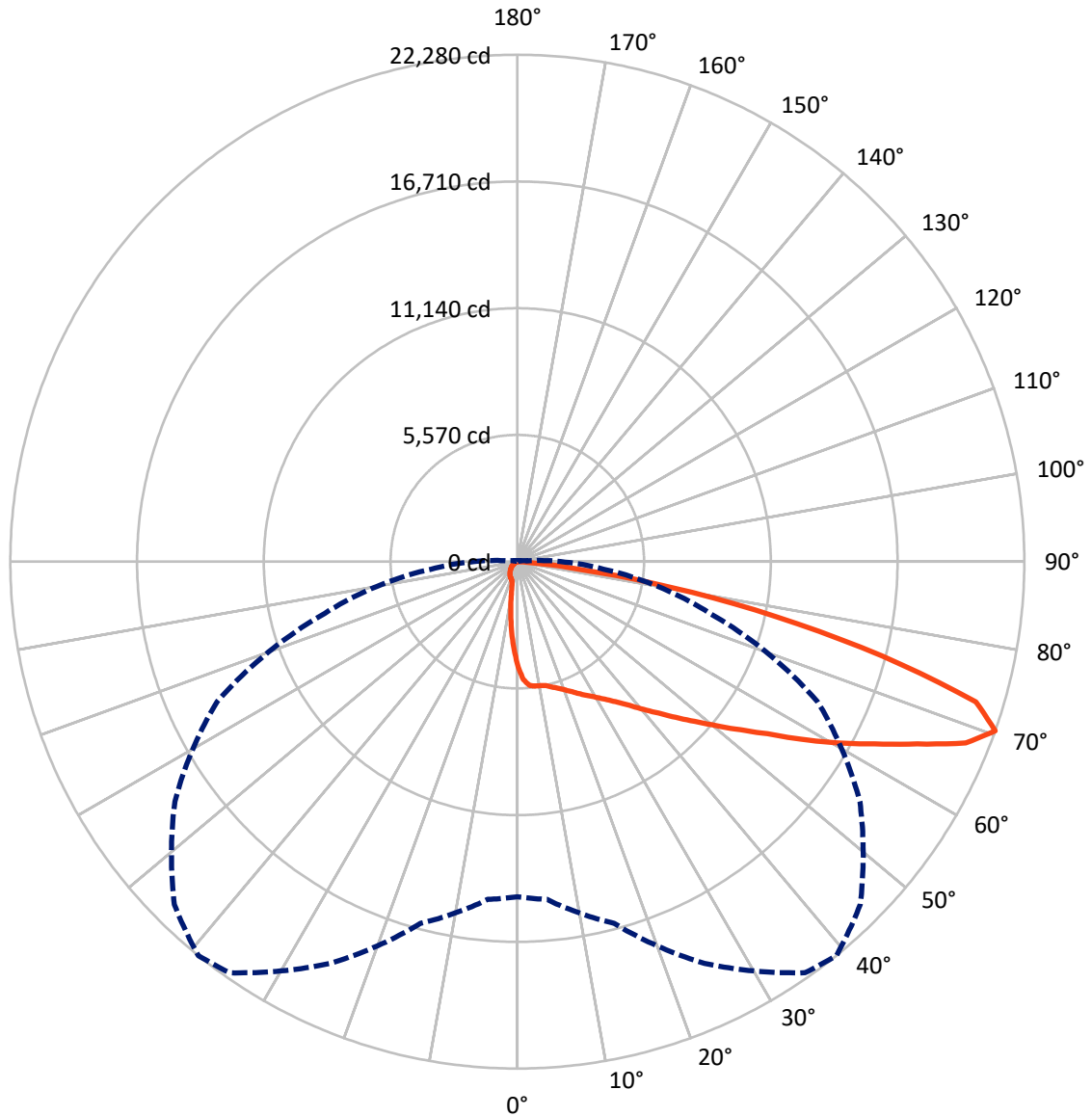
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1935.7	0.0	1935.7
	% Fixture	6.5	0.0	6.5
Street Side	Lumens	27750.3	0.0	27750.3
	% Fixture	93.5	0.0	93.5
Total	Lumens	29686.0	0.0	29686.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	395.1	1.3
10°-20°	1026.7	3.5
20°-30°	1720.0	5.8
30°-40°	2667.5	9.0
40°-50°	4227.2	14.2
50°-60°	6196.5	20.9
60°-70°	7942.4	26.8
70°-80°	4990.7	16.8
80°-90°	519.9	1.8
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°	29686.0	100.0
0°-180°	29686.0	100.0

Coefficient of Utilization



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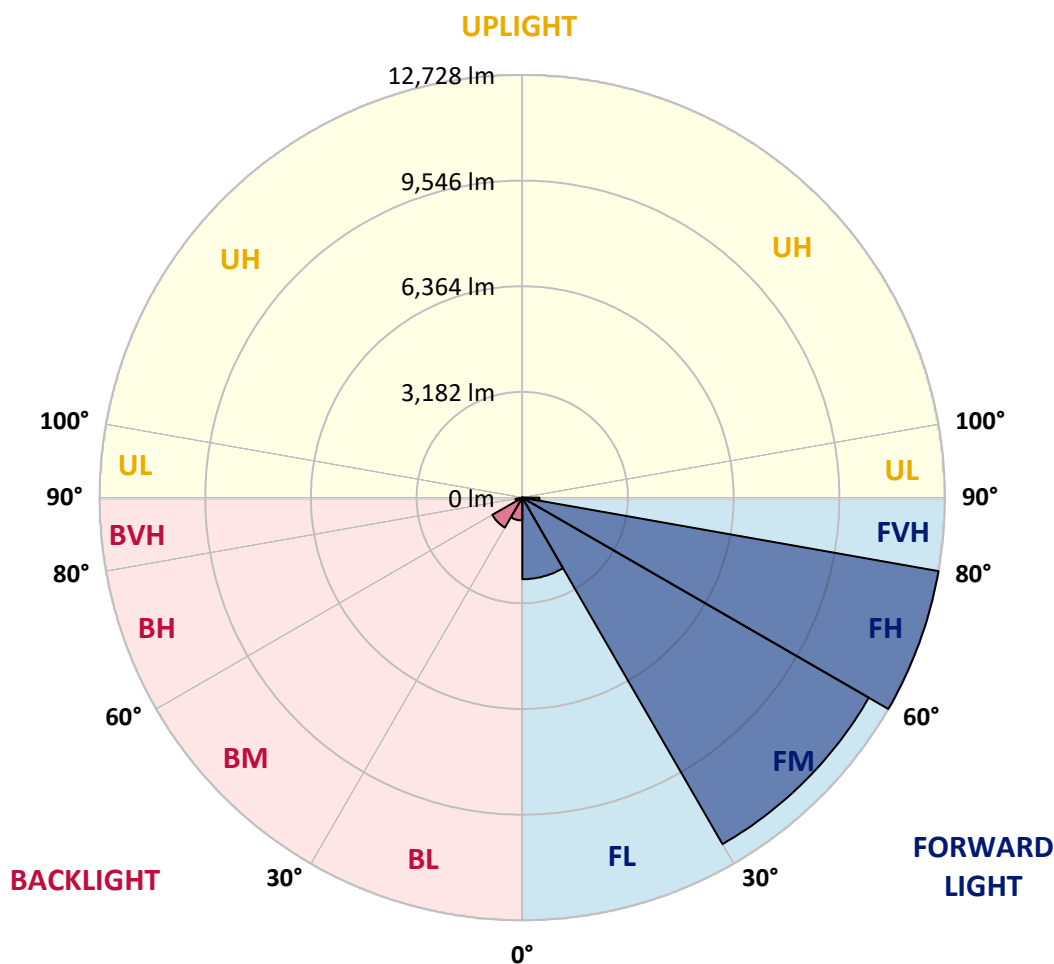
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2456.4	8.3			
FM	(30°-60°)	12049.5	40.6			
FH	(60°-80°)	12728.4	42.9			G5
FVH	(80°-90°)	516.1	1.7			G4/750
BL	(0°-30°)	685.4	2.3	B2/1000		
BM	(30°-60°)	1041.7	3.5	B2/2500		
BH	(60°-80°)	204.7	0.7	B1/500		G1/500
BVH	(80°-90°)	3.8	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-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	39°	45°	55°	65°	75°	85°
0°	4632.0	4632.0	4632.0	4632.0	4632.0	4632.0	4632.0	4632.0	4632.0	4632.0	4632.0
2.5°	5352.2	5334.2	5310.3	5282.4	5202.6	5188.6	5140.7	5039.0	4917.3	4817.6	4679.9
5°	5605.5	5615.5	5597.5	5547.7	5489.8	5455.9	5396.1	5238.5	5080.9	4879.4	4654.0
7.5°	5663.4	5683.3	5661.4	5613.5	5557.6	5521.7	5473.9	5338.2	5154.7	4925.3	4616.1
10°	5657.4	5681.3	5667.4	5623.5	5577.6	5543.7	5491.8	5384.1	5236.5	4995.1	4628.0
12.5°	5647.4	5679.3	5677.3	5655.4	5617.5	5591.6	5559.6	5463.9	5326.2	5096.8	4693.9
15°	5619.5	5659.4	5695.3	5713.2	5715.2	5715.2	5675.3	5573.6	5441.9	5230.5	4779.7
17.5°	5631.5	5677.3	5767.1	5819.0	5854.9	5850.9	5809.0	5699.3	5553.7	5368.1	4869.4
20°	5705.3	5767.1	5892.8	5996.5	6032.4	6020.4	5964.6	5836.9	5671.3	5485.8	4957.2
22.5°	5886.8	5942.6	6100.2	6221.9	6247.9	6215.9	6136.1	5962.6	5813.0	5613.5	5062.9
25°	6158.1	6223.9	6369.5	6461.3	6461.3	6443.4	6331.6	6128.2	5972.6	5791.0	5200.6
27.5°	6487.2	6543.1	6686.7	6768.5	6720.6	6668.8	6557.1	6311.7	6162.1	6014.5	5366.1
30°	6820.4	6856.3	7007.9	7043.8	6993.9	6928.1	6808.4	6563.0	6431.4	6317.7	5605.5
32.5°	7135.6	7213.4	7339.0	7331.1	7263.2	7231.3	7121.6	6860.3	6786.5	6774.5	5940.7
35°	7450.8	7510.6	7622.3	7650.2	7590.4	7584.4	7504.6	7311.1	7313.1	7390.9	6463.3
37.5°	7722.1	7775.9	7907.6	7969.4	7981.4	8011.3	7979.4	7851.7	8033.2	8246.7	7155.5
40°	7949.5	8025.3	8192.8	8300.6	8424.2	8534.0	8539.9	8567.9	8932.9	9300.0	8059.2
42.5°	8127.0	8232.7	8476.1	8675.6	8958.9	9098.5	9210.2	9363.8	9978.2	10526.8	9124.4
45°	8358.4	8480.1	8783.3	9096.5	9539.4	9768.8	9924.4	10335.3	11207.0	11955.1	10217.6
47.5°	8741.4	8805.3	9114.5	9571.3	10153.8	10480.9	10784.1	11406.5	12525.6	13195.9	11127.3
50°	9234.1	9276.0	9509.4	10143.8	10897.8	11328.7	11881.3	12613.4	13894.1	14225.3	11641.9
52.5°	9778.7	9792.7	9968.2	10774.2	11731.7	12274.3	12892.7	13796.4	15009.2	14959.4	11983.0
55°	10411.1	10391.2	10540.8	11458.4	12719.1	13339.5	14059.7	15007.2	15976.7	15480.0	12178.5
57.5°	11135.2	11081.4	11227.0	12366.1	13983.9	14726.0	15458.1	16052.5	16726.8	15916.9	12272.3
60°	11893.3	11785.6	11959.1	13385.4	15474.0	16178.2	16786.6	16946.2	17516.7	16264.0	12110.7
62.5°	12497.7	12499.7	12822.9	14470.6	17006.1	17622.5	17945.6	18089.3	18197.0	16188.2	11260.9
65°	13441.3	13473.2	13989.9	15976.7	18779.5	19314.1	19535.5	19068.7	18226.9	15246.6	9984.2
67.5°	14414.8	14516.5	15462.1	18051.4	20828.2	21259.1	20973.8	19258.3	17413.0	13098.2	7570.4
70°	14731.9	14899.5	16457.5	19479.7	22057.0	22280.4	21314.9	18374.5	14556.4	8757.4	3810.2
72.5°	13499.1	13770.4	15885.0	18959.0	21273.0	21079.5	19070.7	15410.2	9254.1	3325.4	1163.0
75°	9519.4	9639.1	13201.9	15727.4	17109.8	16561.2	14506.5	9934.3	3806.2	933.6	399.0
77.5°	4915.3	4857.5	7851.7	10435.0	12202.5	11633.9	9499.5	5142.7	1442.3	389.0	247.4
80°	2541.4	2583.3	3397.2	5467.9	7448.8	6854.3	5064.9	2383.8	768.0	215.4	189.5
82.5°	1424.3	1336.5	1953.0	2387.8	3483.0	2730.9	1943.0	1687.6	335.1	129.7	179.5
85°	259.3	271.3	1071.2	1290.7	1208.9	768.0	626.4	1127.1	97.7	71.8	125.7
87.5°	4.0	4.0	207.5	371.0	235.4	107.7	197.5	161.6	19.9	27.9	21.9
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°	4632.0	4632.0	4632.0	4632.0	4632.0	4632.0	4632.0	4632.0	4632.0	4632.0	4632.0
2.5°	4610.1	4534.3	4392.7	4253.0	4075.5	3929.8	3832.1	3730.4	3626.6	3634.6	3658.5
5°	4530.3	4398.6	4119.4	3824.1	3540.9	3285.5	3034.2	2808.7	2717.0	2633.2	2637.2
7.5°	4450.5	4265.0	3856.0	3393.2	2964.3	2529.5	2214.3	1954.9	1817.3	1713.6	1683.7
10°	4414.6	4169.2	3614.7	2978.3	2369.9	1895.1	1490.2	1278.7	1115.1	1063.3	1077.2
12.5°	4430.6	4121.4	3397.2	2603.3	1879.1	1320.6	1037.3	929.6	893.7	887.7	883.7
15°	4460.5	4087.4	3183.8	2188.3	1380.4	981.5	871.7	851.8	847.8	843.8	845.8
17.5°	4500.4	4057.5	2956.4	1799.4	1059.3	857.8	825.9	815.9	813.9	813.9	813.9
20°	4540.3	4023.6	2703.0	1452.2	883.7	809.9	790.0	784.0	782.0	782.0	780.0
22.5°	4586.2	3993.7	2445.7	1141.1	813.9	776.0	758.0	754.1	752.1	750.1	750.1
25°	4652.0	3955.8	2172.4	933.6	770.0	744.1	726.1	722.1	720.1	712.2	714.2
27.5°	4739.8	3927.9	1891.1	805.9	730.1	704.2	692.2	686.2	682.2	676.3	678.2
30°	4859.4	3903.9	1591.9	736.1	684.2	662.3	650.3	646.3	642.3	636.4	636.4
32.5°	5066.9	3913.9	1276.7	680.2	642.3	616.4	604.4	600.4	596.5	590.5	590.5
35°	5378.1	3971.7	1021.4	632.4	592.5	566.5	554.6	554.6	548.6	540.6	538.6
37.5°	5886.8	4119.4	819.9	586.5	544.6	520.7	506.7	502.7	496.7	484.7	482.8
40°	6487.2	4348.8	690.2	540.6	500.7	476.8	464.8	452.8	436.9	424.9	422.9
42.5°	7241.3	4584.2	598.5	494.7	458.8	436.9	422.9	403.0	379.0	363.1	361.1
45°	8027.3	4799.6	536.6	452.8	418.9	401.0	385.0	353.1	323.2	303.2	301.2
47.5°	8613.7	4839.5	486.7	412.9	385.0	367.1	345.1	305.2	265.3	247.4	241.4
50°	8891.0	4646.0	434.9	373.0	351.1	331.1	303.2	257.3	213.4	191.5	187.5
52.5°	8988.8	4310.9	393.0	337.1	317.2	293.2	259.3	207.5	167.6	145.6	143.6
55°	8948.9	3888.0	355.1	303.2	277.3	249.4	215.4	165.6	123.7	105.7	101.7
57.5°	8739.4	3349.3	317.2	269.3	237.4	209.5	171.6	123.7	83.8	67.8	65.8
60°	8174.9	2615.2	279.3	231.4	201.5	171.6	135.6	87.8	51.9	37.9	37.9
62.5°	7221.3	1941.0	243.4	193.5	169.6	137.6	95.8	55.9	27.9	19.9	18.0
65°	6034.4	1432.3	203.5	163.6	141.6	107.7	67.8	33.9	14.0	6.0	4.0
67.5°	4211.1	883.7	169.6	133.7	115.7	77.8	41.9	14.0	6.0	0.0	0.0
70°	1913.1	420.9	129.7	101.7	87.8	55.9	21.9	8.0	4.0	0.0	0.0
72.5°	594.5	221.4	91.8	73.8	59.8	35.9	12.0	6.0	4.0	0.0	0.0
75°	275.3	141.6	57.9	39.9	33.9	18.0	8.0	4.0	2.0	0.0	0.0
77.5°	205.5	109.7	33.9	21.9	18.0	12.0	6.0	4.0	2.0	0.0	0.0
80°	179.5	55.9	19.9	14.0	10.0	8.0	4.0	2.0	0.0	0.0	0.0
82.5°	161.6	27.9	12.0	8.0	6.0	4.0	2.0	2.0	0.0	0.0	0.0
85°	87.8	16.0	8.0	6.0	4.0	2.0	2.0	0.0	0.0	0.0	0.0
87.5°	16.0	8.0	6.0	4.0	4.0	2.0	2.0	2.0	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)