

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: P458973

Luminaire Tested: **GALN-SA4D-735-U-T4FT-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P458973
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-SA4D-735-U-T4FT-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3500K, 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: 20528 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

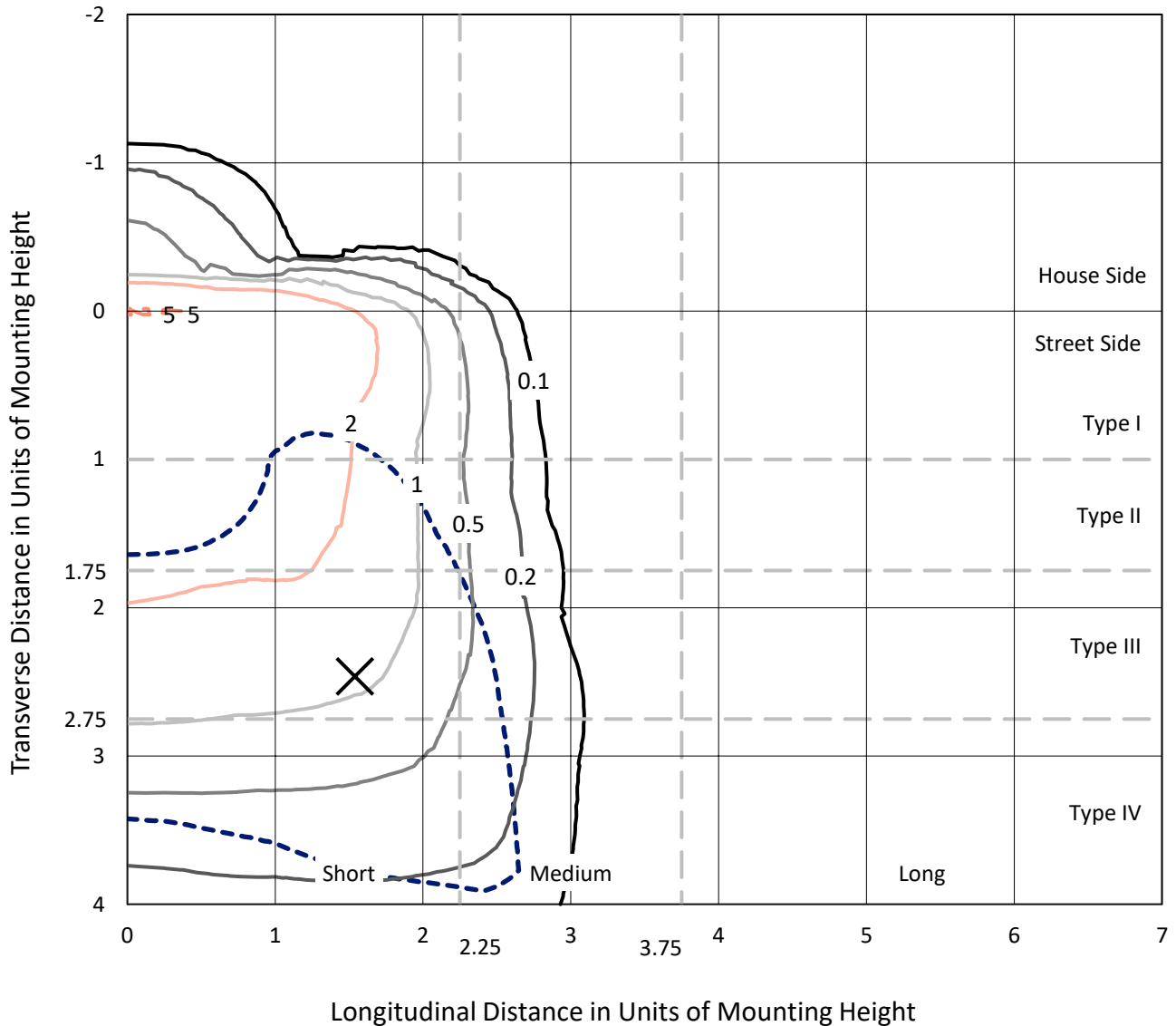
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

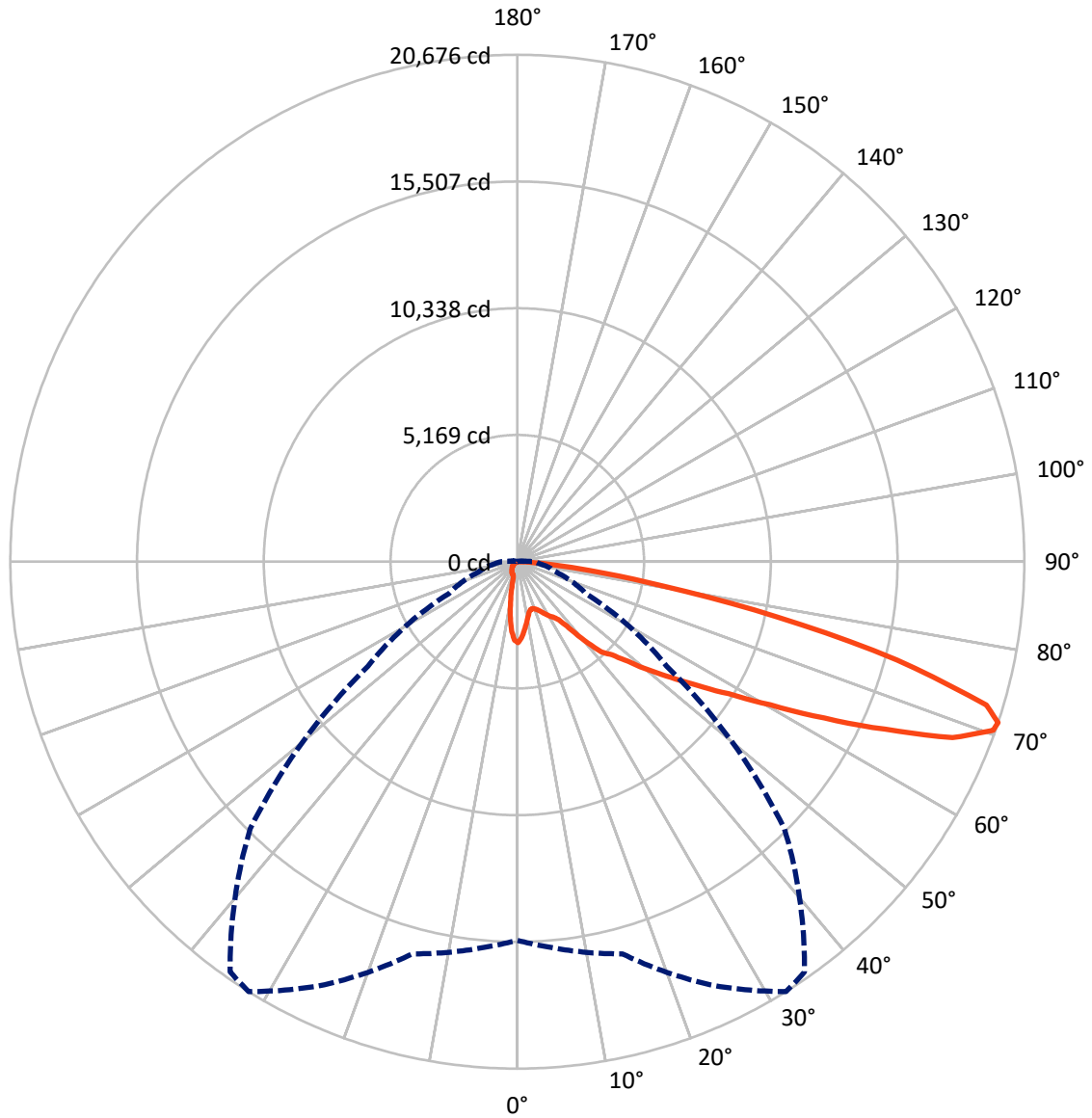
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 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
House Side	Lumens	1719.4	0.0	1719.4
	% Fixture	8.4	0.0	8.4
Street Side	Lumens	18808.6	0.0	18808.6
	% Fixture	91.6	0.0	91.6
Total	Lumens	20528.0	0.0	20528.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	268.4	1.3
10°-20°	582.6	2.8
20°-30°	906.3	4.4
30°-40°	1509.9	7.4
40°-50°	2808.7	13.7
50°-60°	4509.5	22.0
60°-70°	6065.5	29.5
70°-80°	3598.8	17.5
80°-90°	278.2	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°	20528.0	100.0
0°-180°	20528.0	100.0



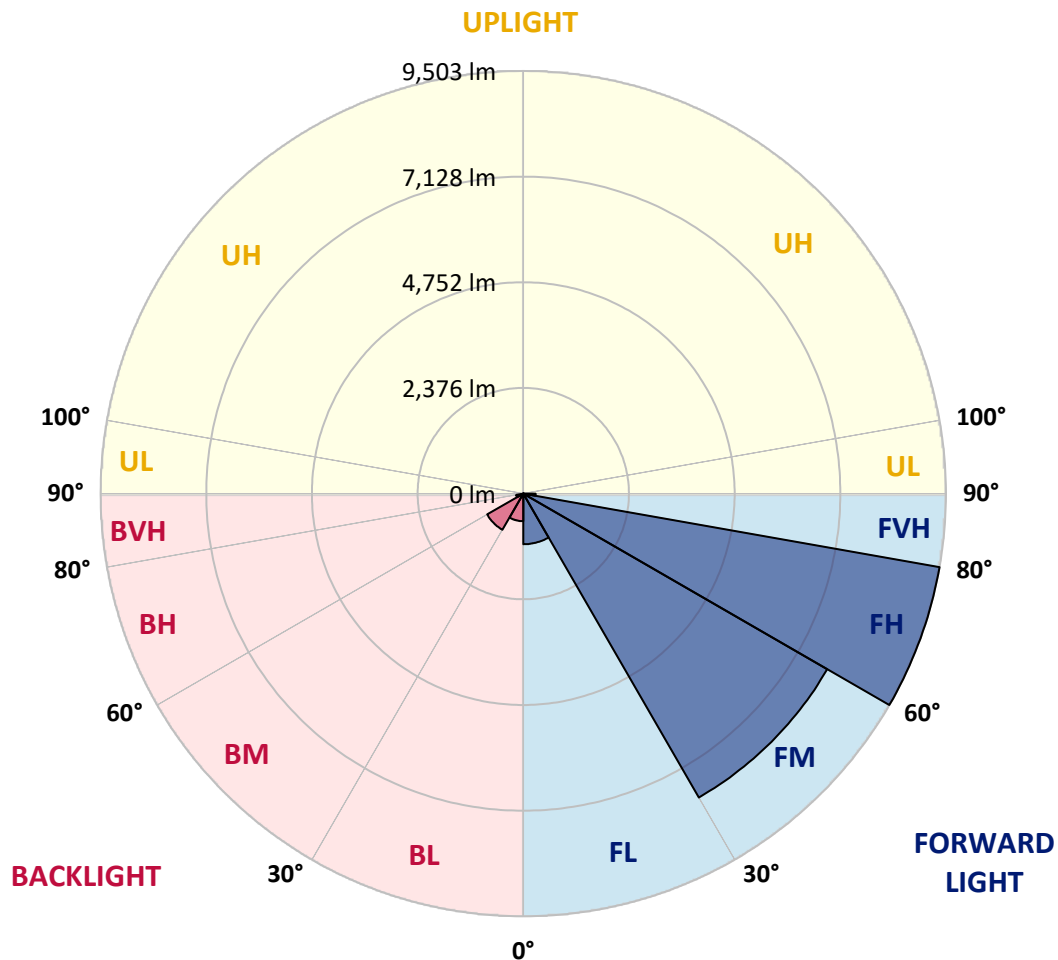
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1137.8	5.5			
FM	(30°-60°)	7890.2	38.4			
FH	(60°-80°)	9503.5	46.3			G4/12000
FVH	(80°-90°)	277.1	1.3			G3/500
BL	(0°-30°)	619.5	3.0	B2/1000		
BM	(30°-60°)	938.0	4.6	B1/1000		
BH	(60°-80°)	160.8	0.8	B1/500		G1/500
BVH	(80°-90°)	1.1	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	32°	35°	45°	55°	65°	75°	85°
0°	3301.2	3301.2	3301.2	3301.2	3301.2	3301.2	3301.2	3301.2	3301.2	3301.2	3301.2
2.5°	3061.7	3093.2	3088.5	3099.5	3126.3	3137.3	3167.3	3200.4	3246.1	3277.6	3298.1
5°	2741.8	2765.5	2768.6	2823.8	2850.6	2880.5	2968.7	3064.9	3172.0	3257.1	3313.8
7.5°	2399.9	2412.5	2437.7	2510.2	2577.9	2607.9	2741.8	2908.9	3077.5	3236.6	3339.0
10°	2117.8	2132.0	2177.7	2254.9	2317.9	2357.3	2543.3	2752.9	2989.2	3225.6	3375.3
12.5°	1957.1	1965.0	1982.3	2051.6	2132.0	2174.6	2374.7	2614.2	2918.3	3230.3	3436.7
15°	1946.1	1942.9	1922.4	1950.8	2023.3	2067.4	2262.8	2519.6	2855.3	3246.1	3509.2
17.5°	2004.4	1996.5	1947.6	1947.6	2007.5	2043.8	2215.5	2469.2	2823.8	3282.3	3611.6
20°	2094.2	2081.6	2001.2	1994.9	2053.2	2091.0	2243.9	2472.4	2830.1	3350.1	3748.7
22.5°	2207.6	2193.5	2072.1	2075.3	2138.3	2176.1	2325.8	2529.1	2869.5	3433.6	3895.3
25°	2355.8	2340.0	2196.6	2190.3	2256.5	2289.6	2447.2	2629.9	2924.6	3537.6	4087.5
27.5°	2552.7	2519.6	2347.9	2338.4	2409.3	2451.9	2593.7	2765.5	3022.3	3681.0	4346.0
30°	2715.0	2678.8	2514.9	2489.7	2565.3	2598.4	2745.0	2948.3	3214.6	3931.5	4703.7
32.5°	2927.8	2874.2	2681.9	2615.8	2696.1	2738.7	2964.0	3288.6	3499.8	4196.3	5129.1
35°	3406.8	3373.7	3138.9	2907.3	2902.6	2956.1	3287.0	3632.1	3792.9	4609.1	5709.0
37.5°	4092.3	4068.6	3819.6	3509.2	3419.4	3394.2	3679.4	4010.3	4260.9	5176.4	6383.4
40°	4888.0	4832.9	4604.4	4341.2	4224.6	4150.6	4142.7	4572.9	4872.3	5946.9	7086.2
42.5°	5458.4	5357.6	5080.3	5061.4	5036.1	4958.9	4735.2	5395.4	5661.7	6775.8	7837.8
45°	6057.2	5904.4	5491.5	5420.6	5411.2	5406.4	5630.2	6369.2	6522.1	7674.0	8610.0
47.5°	6522.1	6400.7	6062.0	6030.4	6069.8	6177.0	6813.6	7402.9	7371.4	8474.5	9257.6
50°	7141.4	7050.0	6673.4	6733.2	6936.5	7111.4	8148.3	8529.6	8069.5	9104.8	9728.8
52.5°	7872.5	7703.9	7354.1	7516.4	7828.4	8119.9	9564.9	9516.0	8559.5	9579.1	10080.2
55°	8506.0	8386.2	8266.5	8435.1	8901.5	9265.5	10844.4	10255.1	8915.7	9960.4	10234.6
57.5°	9577.5	9549.1	9426.2	9598.0	10163.7	10541.9	11990.0	10828.6	9144.2	10158.9	10053.4
60°	11162.7	11117.0	10888.5	11107.6	11845.0	12439.1	13045.7	11343.9	9196.2	10081.7	9531.8
62.5°	13069.4	12913.4	12718.0	13041.0	14052.7	14314.2	14040.0	11649.6	9002.3	9467.2	8274.3
65°	14850.0	14689.3	14694.0	15374.7	16476.2	16654.2	15199.8	11603.9	8435.1	7927.7	6102.9
67.5°	16213.0	16186.2	16378.5	17706.8	19147.1	19024.2	16236.7	10920.0	6753.7	5138.6	3242.9
70°	16282.4	16334.4	16885.9	19128.2	20590.5	20395.1	16148.4	8876.3	4210.4	2363.6	1277.9
71°	15444.1	15793.9	16556.5	19084.1	20675.6	20421.9	15404.7	7434.4	3088.5	1648.2	921.8
72.5°	13160.8	13345.1	14993.4	17960.5	20002.7	19460.7	13518.5	5211.0	1977.6	1008.5	529.5
75°	7248.5	7702.3	10040.8	14090.5	15998.7	15522.8	8810.1	2475.5	986.4	551.5	219.0
77.5°	3450.9	3362.7	4899.0	8379.9	10847.6	10822.3	4438.9	1099.9	575.2	373.5	110.3
80°	986.4	1109.3	1875.2	3983.5	6022.6	6088.7	1705.0	531.0	398.7	291.5	56.7
82.5°	297.8	304.1	688.6	1761.7	2995.5	2823.8	639.8	271.0	286.8	231.6	33.1
85°	52.0	64.6	203.3	620.9	1142.4	866.7	160.7	129.2	189.1	152.8	18.9
87.5°	3.2	4.7	67.8	70.9	100.8	58.3	28.4	18.9	41.0	41.0	11.0
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°	3301.2	3301.2	3301.2	3301.2	3301.2	3301.2	3301.2	3301.2	3301.2	3301.2	3301.2
2.5°	3312.3	3321.7	3315.4	3301.2	3277.6	3249.2	3211.4	3179.9	3153.1	3138.9	3156.3
5°	3332.7	3345.3	3313.8	3242.9	3135.8	3019.2	2886.8	2784.4	2704.0	2678.8	2669.3
7.5°	3364.3	3372.1	3287.0	3129.5	2902.6	2626.8	2385.7	2182.4	2024.9	1977.6	1908.2
10°	3405.2	3400.5	3239.8	2946.7	2548.0	2133.6	1760.1	1482.8	1273.2	1197.6	1191.3
12.5°	3468.3	3443.0	3179.9	2697.7	2125.7	1583.6	1121.9	877.7	745.3	701.2	691.8
15°	3547.0	3487.2	3085.3	2406.2	1627.8	1022.7	691.8	617.7	600.4	597.2	594.1
17.5°	3640.0	3545.5	2960.9	2048.5	1144.0	663.4	578.3	576.7	578.3	575.2	573.6
20°	3766.1	3606.9	2812.7	1624.6	756.4	559.4	551.5	551.5	553.1	551.5	551.5
22.5°	3900.0	3679.4	2629.9	1240.1	570.4	531.0	529.5	532.6	535.8	534.2	534.2
25°	4065.5	3774.0	2388.9	849.3	510.5	507.4	509.0	515.3	521.6	523.2	521.6
27.5°	4305.0	3890.6	2130.4	584.6	468.0	471.2	486.9	502.7	512.1	513.7	513.7
30°	4574.4	4019.8	1793.2	474.3	433.3	433.3	452.2	482.2	502.7	505.8	507.4
32.5°	4921.1	4169.5	1419.8	427.0	400.2	397.1	414.4	450.7	488.5	499.5	499.5
35°	5349.7	4346.0	1055.8	397.1	376.6	368.7	378.2	408.1	457.0	488.5	491.6
37.5°	5852.4	4513.0	772.1	370.3	354.5	343.5	349.8	373.5	412.8	460.1	472.7
40°	6317.2	4661.1	576.7	348.2	332.5	324.6	329.3	340.4	373.5	417.6	425.5
42.5°	6824.6	4776.1	458.5	324.6	310.4	307.3	307.3	312.0	334.1	359.3	360.8
45°	7330.4	4817.1	384.5	296.2	286.8	289.9	288.4	285.2	294.7	291.5	291.5
47.5°	7691.3	4768.3	318.3	269.5	269.5	274.2	266.3	255.3	250.5	231.6	233.2
50°	7938.7	4590.2	261.6	237.9	250.5	256.8	241.1	223.8	206.4	185.9	181.2
52.5°	8041.1	4273.5	214.3	197.0	222.2	230.1	211.2	190.7	163.9	146.5	141.8
55°	7974.9	3882.7	178.1	160.7	187.5	197.0	178.1	154.4	124.5	105.6	102.4
57.5°	7683.4	3416.3	151.3	127.6	149.7	156.0	143.4	118.2	88.2	69.3	69.3
60°	7179.2	2934.1	122.9	100.8	111.9	121.3	108.7	85.1	59.9	42.5	39.4
62.5°	6156.5	2382.6	99.3	78.8	78.8	86.7	75.6	61.5	37.8	22.1	20.5
65°	4445.2	1634.1	78.8	58.3	56.7	56.7	47.3	41.0	22.1	9.5	6.3
67.5°	2415.6	921.8	63.0	44.1	39.4	37.8	29.9	23.6	9.5	1.6	0.0
70°	950.2	354.5	48.8	29.9	25.2	23.6	15.8	11.0	6.3	0.0	0.0
71°	644.5	244.2	42.5	25.2	20.5	17.3	12.6	9.5	4.7	0.0	0.0
72.5°	368.7	151.3	33.1	18.9	15.8	12.6	9.5	6.3	4.7	0.0	0.0
75°	160.7	77.2	20.5	14.2	11.0	7.9	6.3	4.7	1.6	0.0	0.0
77.5°	81.9	42.5	14.2	11.0	6.3	4.7	3.2	1.6	0.0	0.0	0.0
80°	45.7	22.1	9.5	6.3	4.7	3.2	1.6	1.6	0.0	0.0	0.0
82.5°	25.2	12.6	4.7	3.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0
85°	15.8	7.9	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	7.9	3.2	0.0	0.0	0.0	0.0	1.6	1.6	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)