

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: P651363

Luminaire Tested: **GALN-SA4D-840-U-T2R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P651363
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-7)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4D-840-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20605.3 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

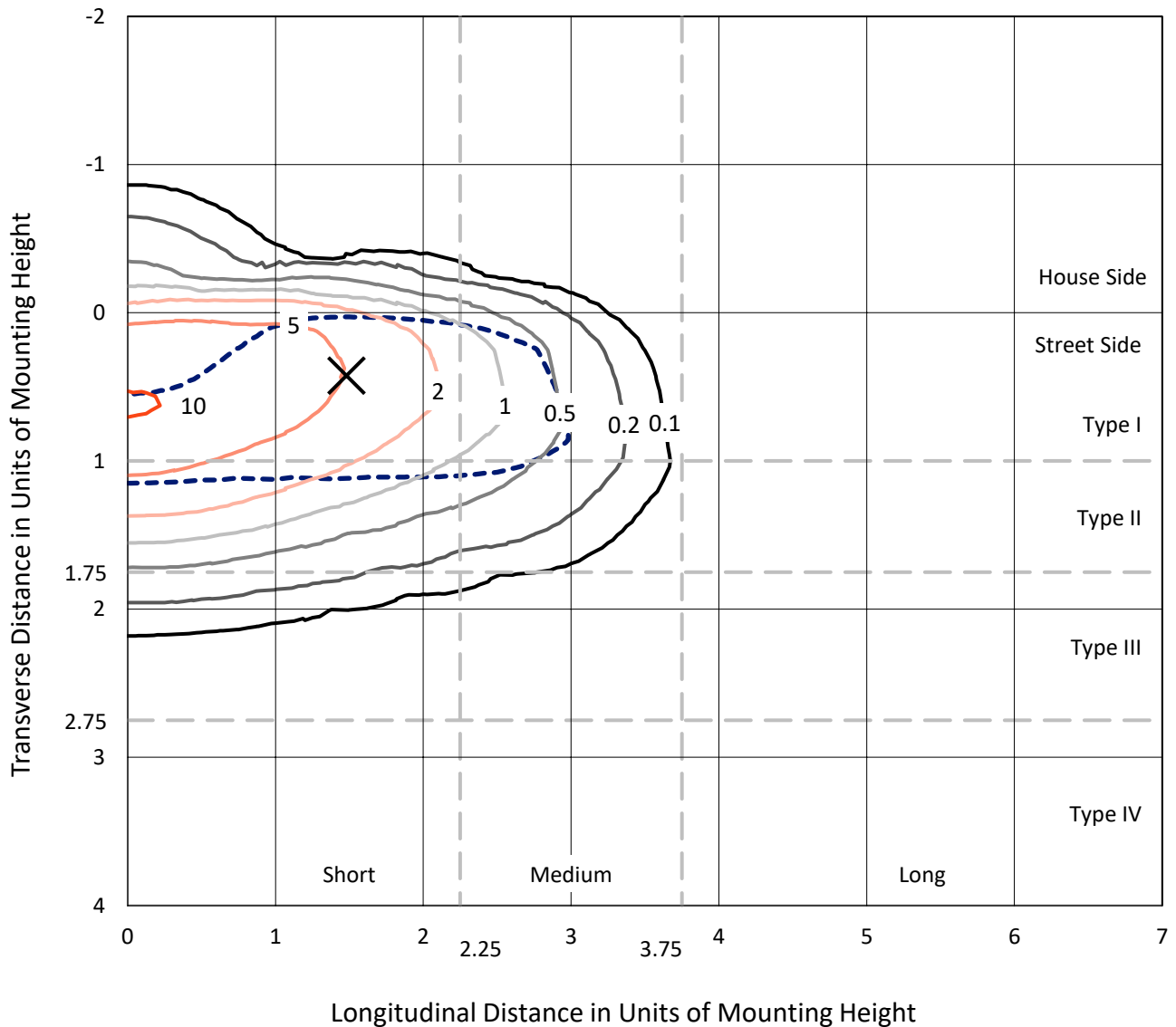
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

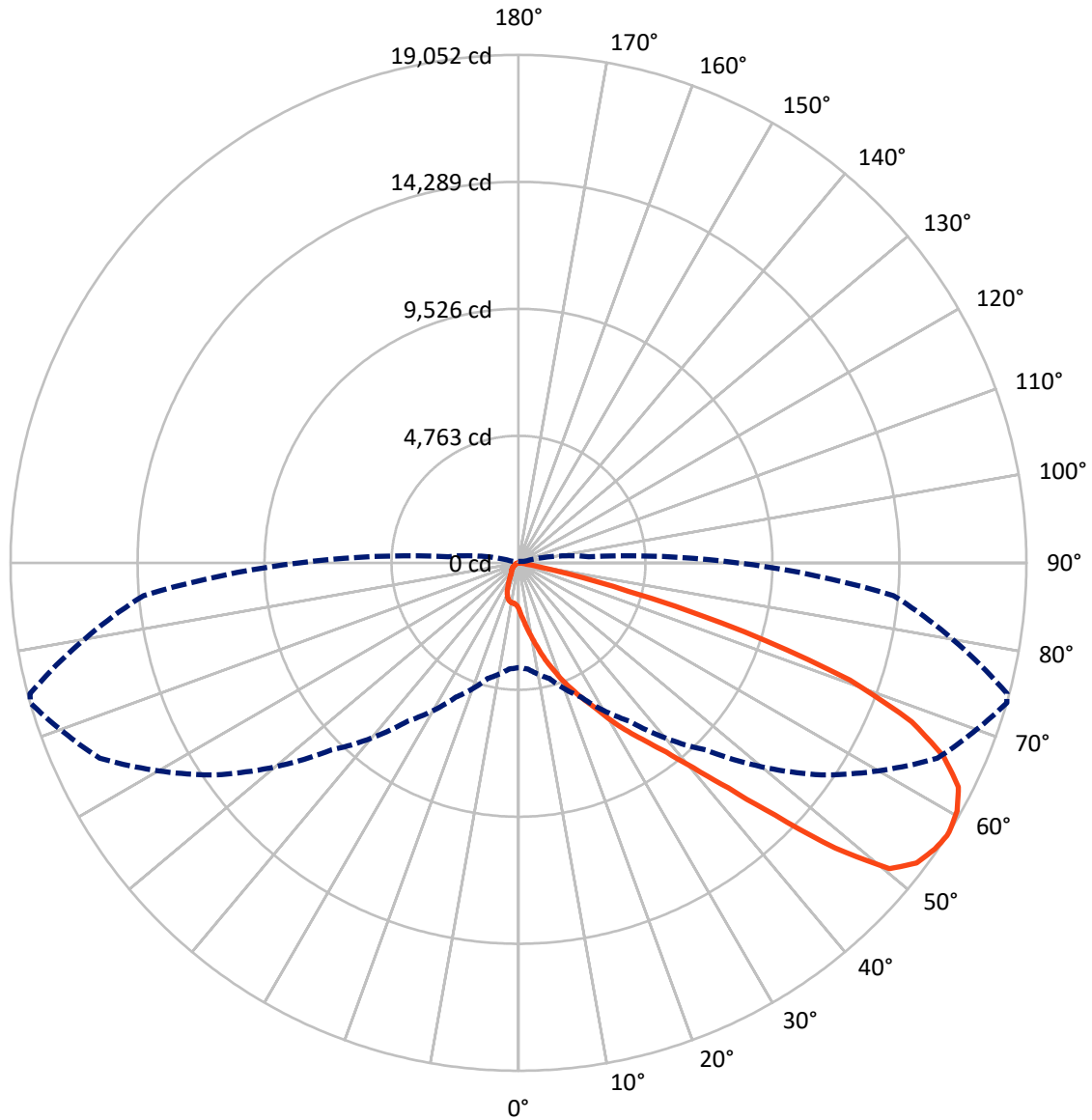
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.5 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 74-Deg Lateral - - - Horizontal Cone Through 57-Deg Vertical

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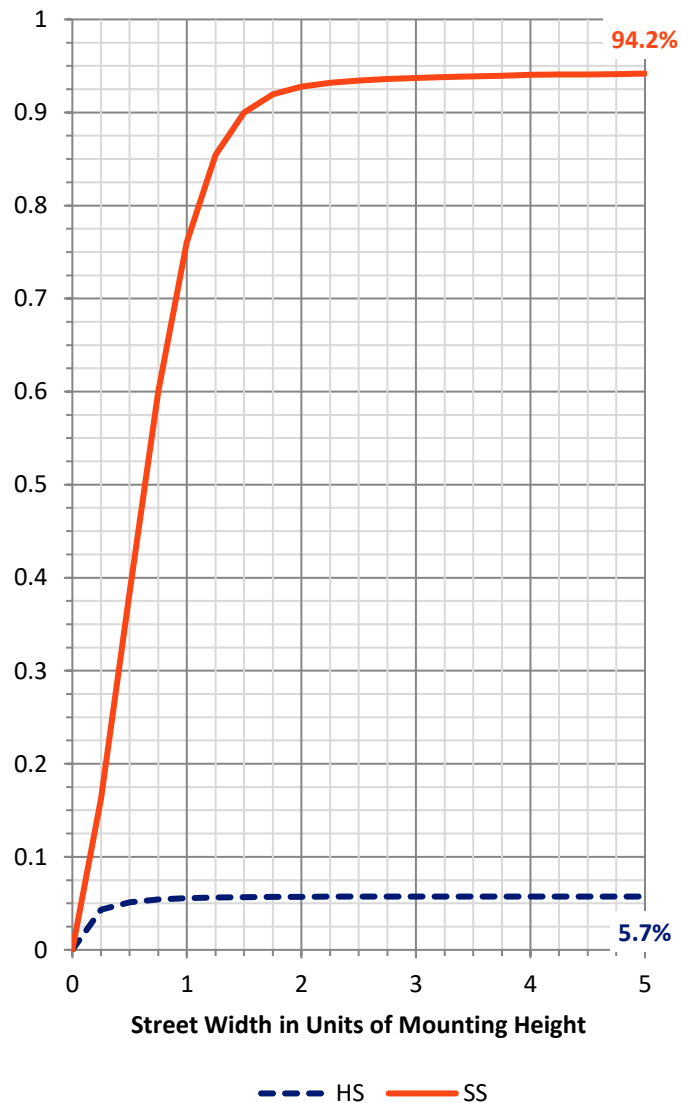
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1188.4	0.0	1188.4
	% Fixture	5.8	0.0	5.8
Street Side	Lumens	19416.9	0.0	19416.9
	% Fixture	94.2	0.0	94.2
Total	Lumens	20605.3	0.0	20605.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.3	1.0
10°-20°	821.0	4.0
20°-30°	1756.7	8.5
30°-40°	3228.9	15.7
40°-50°	4949.9	24.0
50°-60°	5236.4	25.4
60°-70°	3419.5	16.6
70°-80°	934.3	4.5
80°-90°	50.3	0.2
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°	20605.3	100.0
0°-180°	20605.3	100.0

Coefficient of Utilization



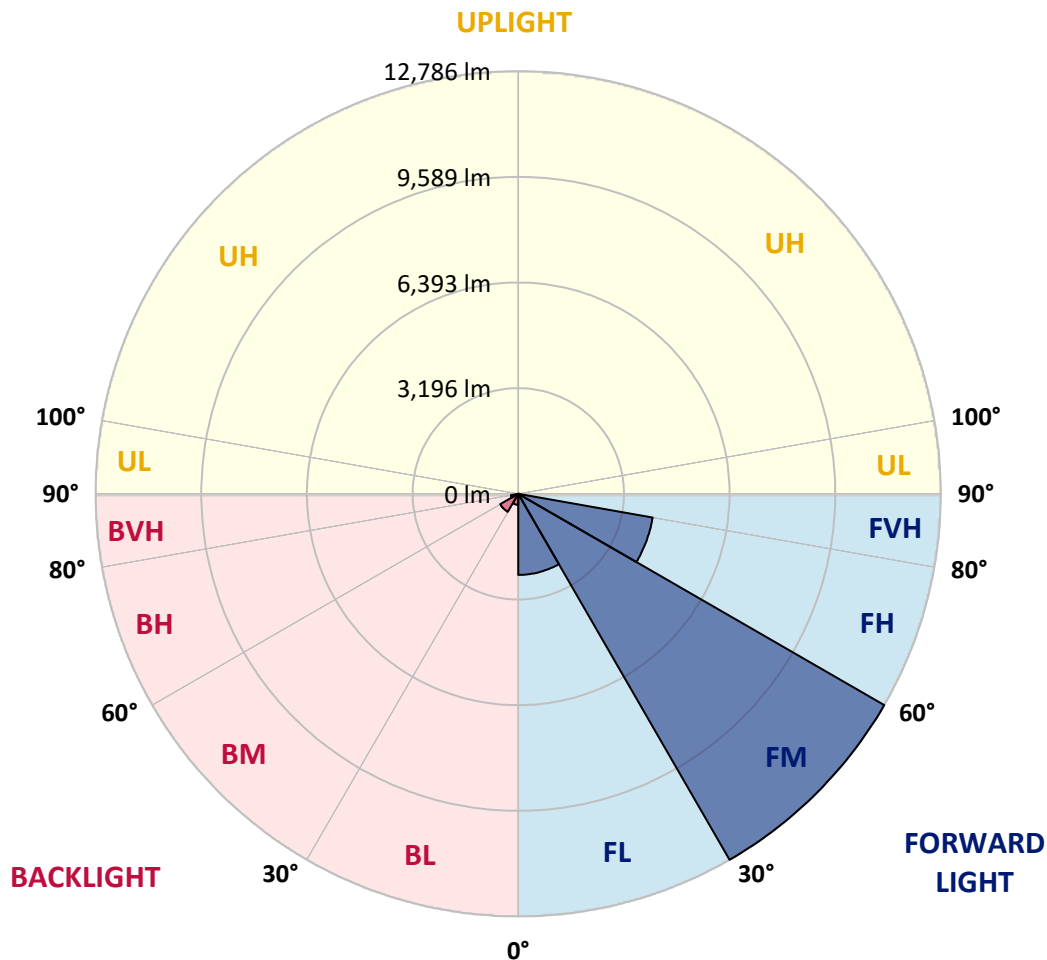
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2454.1	11.9			
FM (30°-60°)	12786.0	62.1			
FH (60°-80°)	4130.7	20.0			G2/5000
FVH (80°-90°)	46.1	0.2			G1/100
BL (0°-30°)	332.0	1.6	B1/500		
BM (30°-60°)	629.2	3.1	B1/1000		
BH (60°-80°)	223.1	1.1	B1/500		G1/500
BVH (80°-90°)	4.2	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1725.6	1725.6	1725.6	1725.6	1725.6	1725.6	1725.6	1725.6	1725.6	1725.6	1725.6
2.5°	2525.2	2502.4	2456.9	2441.3	2374.4	2270.5	2179.5	2057.2	1960.4	1950.4	1833.8
5°	3381.7	3330.4	3309.1	3206.6	3045.8	2895.1	2636.2	2439.8	2213.7	2196.6	1961.8
7.5°	4206.8	4135.6	4114.3	4017.5	3829.7	3592.2	3256.4	2899.3	2540.8	2508.1	2134.0
10°	4804.3	4814.2	4775.8	4711.8	4559.6	4317.7	3903.8	3415.8	2905.1	2863.8	2327.5
12.5°	5232.5	5231.1	5238.2	5236.7	5155.7	4972.2	4536.9	3974.9	3306.2	3225.2	2549.4
15°	5511.3	5515.6	5537.0	5610.9	5619.5	5505.6	5142.9	4509.8	3771.5	3670.5	2789.8
17.5°	5793.0	5822.9	5857.1	5926.8	5989.3	5943.9	5687.8	5067.4	4192.6	4117.1	3047.3
20°	6258.2	6299.5	6279.6	6322.2	6354.9	6359.2	6161.5	5582.5	4703.3	4576.6	3341.8
22.5°	7002.3	7000.8	6949.6	6872.8	6808.8	6806.0	6626.7	6111.7	5167.0	5044.7	3637.7
25°	7942.7	7946.9	7847.3	7628.2	7468.9	7274.0	7067.7	6575.4	5663.5	5512.8	3949.3
27.5°	9021.0	8994.0	8843.2	8541.5	8225.7	7892.9	7595.5	7114.7	6189.9	6064.7	4306.3
30°	9989.8	9979.9	9803.5	9435.0	9019.6	8685.3	8254.2	7790.4	6871.4	6717.7	4706.2
32.5°	10891.8	10906.0	10661.3	10280.0	9878.9	9493.3	9038.1	8436.3	7540.1	7322.3	5141.5
35°	11596.0	11610.3	11356.9	11039.7	10627.2	10307.0	9873.2	9124.8	8200.2	8016.6	5642.2
37.5°	11971.6	11990.1	11843.6	11604.5	11347.0	11186.3	10782.2	10011.2	9002.5	8891.6	6234.0
40°	12042.7	12064.1	12000.1	11936.0	11921.8	12037.0	11918.9	11055.4	10115.0	9941.5	7116.0
42.5°	11829.3	11857.8	11886.2	12028.5	12318.7	12741.2	13152.4	12472.4	11547.6	11314.3	8194.5
45°	11268.8	11266.0	11378.3	11746.8	12396.9	13298.9	14441.3	14246.4	13499.5	13222.1	9718.1
47.5°	10309.9	10295.7	10539.0	11063.9	12076.8	13401.3	15492.6	16400.3	15990.5	15734.4	11355.6
50°	8848.8	8918.6	9301.3	10033.9	11281.6	13091.2	15817.0	17813.0	18034.9	17763.2	12678.7
52.5°	7137.4	7134.5	7734.9	8729.3	10103.6	12408.4	15590.8	18069.1	18699.3	18491.6	13330.2
55°	5282.3	5319.2	5943.9	6946.7	8574.3	11162.1	14852.4	17805.8	18952.5	18805.9	13759.9
57°	3929.3	3994.8	4495.6	5556.8	7242.7	9928.7	13869.4	17334.9	19052.1	18972.5	14116.9
57.5°	3667.6	3670.5	4158.4	5123.0	6852.9	9454.9	13587.7	17138.7	19049.2	19005.2	14175.2
60°	2257.7	2328.9	2666.1	3462.7	5016.2	7379.3	11699.8	16010.5	18901.3	18965.3	14424.2
62.5°	1351.5	1381.4	1600.5	2087.0	3233.6	5386.1	9574.4	14566.5	18515.7	18710.7	14407.2
65°	869.3	876.3	975.9	1263.4	2021.6	3640.5	7377.8	12658.7	17518.5	17877.0	13843.8
67.5°	671.5	682.9	722.7	829.4	1172.3	2267.7	5218.2	10622.9	15905.2	16367.5	12478.0
70°	596.1	601.8	616.0	650.2	775.3	1280.4	3246.5	8298.3	13189.3	13320.3	9765.0
72.5°	486.5	502.2	546.3	557.7	614.6	799.5	1806.7	5569.7	8861.7	8894.4	5463.0
75°	377.0	379.9	445.3	478.0	517.8	550.6	806.6	2808.3	4256.6	4028.9	2105.5
77.5°	281.7	294.5	324.4	365.6	422.5	394.1	361.4	1058.5	1321.6	1297.5	611.7
80°	180.6	187.8	226.2	274.6	328.7	257.5	203.4	310.2	290.2	298.7	146.5
82.5°	91.1	92.5	145.1	223.4	209.2	129.4	128.0	126.7	108.2	106.7	68.3
85°	9.9	21.4	93.9	128.0	93.9	42.6	59.7	58.4	56.9	58.4	39.9
87.5°	1.4	1.4	15.6	18.5	12.8	14.2	17.1	18.5	22.8	21.4	17.1
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°	1725.6	1725.6	1725.6	1725.6	1725.6	1725.6	1725.6	1725.6	1725.6	1725.6	1725.6
2.5°	1776.9	1720.0	1614.7	1513.7	1438.3	1389.9	1327.4	1304.6	1271.8	1267.6	1251.9
5°	1853.7	1745.6	1562.1	1416.9	1300.3	1212.1	1135.3	1071.3	1020.0	1008.7	1014.3
7.5°	1963.2	1802.5	1546.4	1348.6	1186.5	1035.7	913.3	838.0	783.9	764.0	766.8
10°	2087.0	1877.9	1543.6	1276.1	1028.5	843.6	709.9	643.0	611.7	600.4	587.5
12.5°	2233.5	1964.7	1536.4	1163.7	855.0	672.9	577.6	537.7	507.9	499.4	499.4
15°	2398.6	2057.2	1502.3	1024.3	694.2	556.2	492.2	461.0	450.9	442.5	442.5
17.5°	2570.7	2148.2	1431.2	852.2	576.2	476.6	436.7	418.2	404.0	394.1	394.1
20°	2767.1	2237.8	1317.3	700.0	486.5	425.4	394.1	372.7	361.4	352.8	349.9
22.5°	2953.4	2310.4	1172.3	574.7	423.9	382.7	354.2	331.4	320.1	315.8	315.8
25°	3146.9	2354.5	997.3	475.2	386.9	347.2	315.8	297.3	287.4	284.5	283.1
27.5°	3334.6	2380.1	843.6	415.5	352.8	314.4	284.5	270.3	260.4	257.5	258.9
30°	3562.3	2384.3	694.2	372.7	322.9	283.1	256.1	243.3	237.6	234.7	233.3
32.5°	3792.7	2378.7	583.3	347.2	294.5	256.1	233.3	223.4	219.1	214.8	214.8
35°	4051.7	2348.8	496.5	321.5	267.4	233.3	213.4	204.9	199.1	194.9	193.5
37.5°	4373.2	2333.1	446.7	293.1	243.3	212.0	193.5	184.9	180.6	175.0	173.6
40°	4879.7	2402.8	431.1	267.4	219.1	192.1	175.0	165.0	159.4	153.7	152.2
42.5°	5511.3	2525.2	405.4	241.9	197.7	173.6	156.5	145.1	135.1	128.0	125.2
45°	6329.4	2686.0	365.6	214.8	179.2	153.7	138.0	123.8	110.9	105.3	103.9
47.5°	7187.2	2841.1	330.1	193.5	159.4	136.6	119.5	103.9	92.5	88.2	86.8
50°	7713.6	2872.4	307.3	169.3	139.4	118.1	101.0	86.8	79.6	75.4	75.4
52.5°	7954.0	2822.6	276.0	147.9	120.9	103.9	86.8	75.4	71.1	68.3	66.9
55°	8121.9	2745.7	234.7	128.0	103.9	88.2	76.8	68.3	62.6	59.7	58.4
57°	8220.0	2641.8	203.4	112.4	89.7	76.8	68.3	61.1	55.5	49.8	49.8
57.5°	8224.3	2602.1	194.9	110.9	85.4	74.0	66.9	59.7	52.6	46.9	45.5
60°	8097.7	2328.9	156.5	93.9	68.3	62.6	55.5	46.9	37.0	31.3	29.9
62.5°	7690.9	1981.7	129.4	79.6	55.5	48.4	39.9	35.6	25.6	18.5	18.5
65°	7074.8	1607.6	110.9	64.0	45.5	35.6	27.0	25.6	15.6	8.5	7.1
67.5°	6184.2	1251.9	93.9	52.6	38.4	25.6	18.5	17.1	8.5	2.9	0.0
70°	4711.8	853.6	78.2	42.6	28.4	18.5	12.8	9.9	5.7	1.4	0.0
72.5°	2715.8	469.4	65.4	32.7	21.4	14.2	9.9	5.7	5.7	0.0	0.0
75°	970.3	202.0	49.8	24.2	17.1	11.4	7.1	2.9	4.3	1.4	0.0
77.5°	308.7	108.2	32.7	18.5	14.2	8.5	5.7	2.9	2.9	1.4	0.0
80°	91.1	56.9	19.9	15.6	9.9	7.1	4.3	1.4	2.9	1.4	0.0
82.5°	49.8	28.4	15.6	11.4	9.9	5.7	4.3	1.4	1.4	1.4	0.0
85°	25.6	17.1	12.8	11.4	9.9	5.7	4.3	1.4	0.0	1.4	1.4
87.5°	14.2	12.8	12.8	11.4	9.9	7.1	4.3	1.4	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)