

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: P323019

Luminaire Tested: **GLEON-SA5D-827-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P323019
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-19)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA5D-827-U-T4W-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20663 lumens
Efficiency: N/A
Efficacy: 64.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

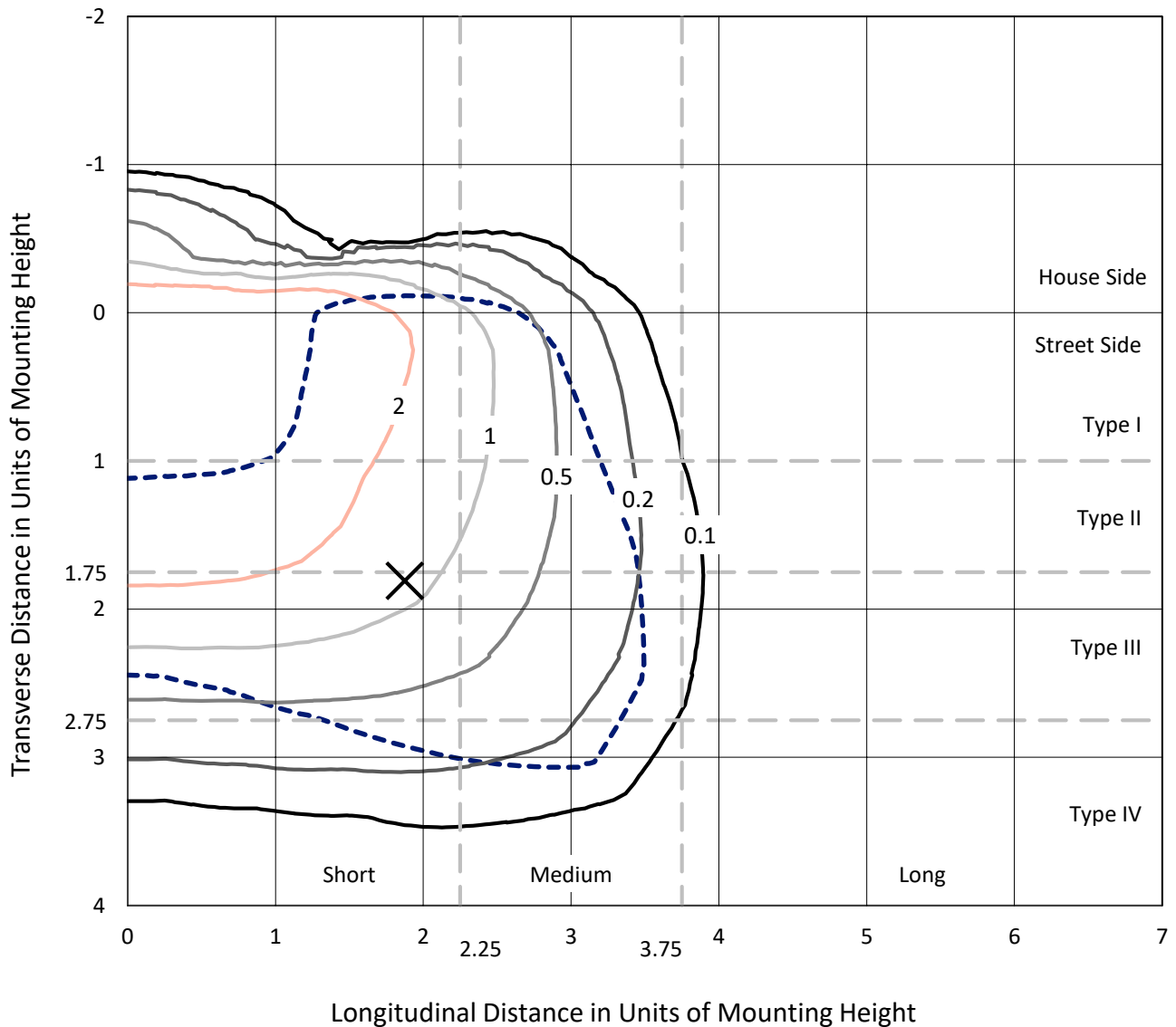
Input Watts (W): 320
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

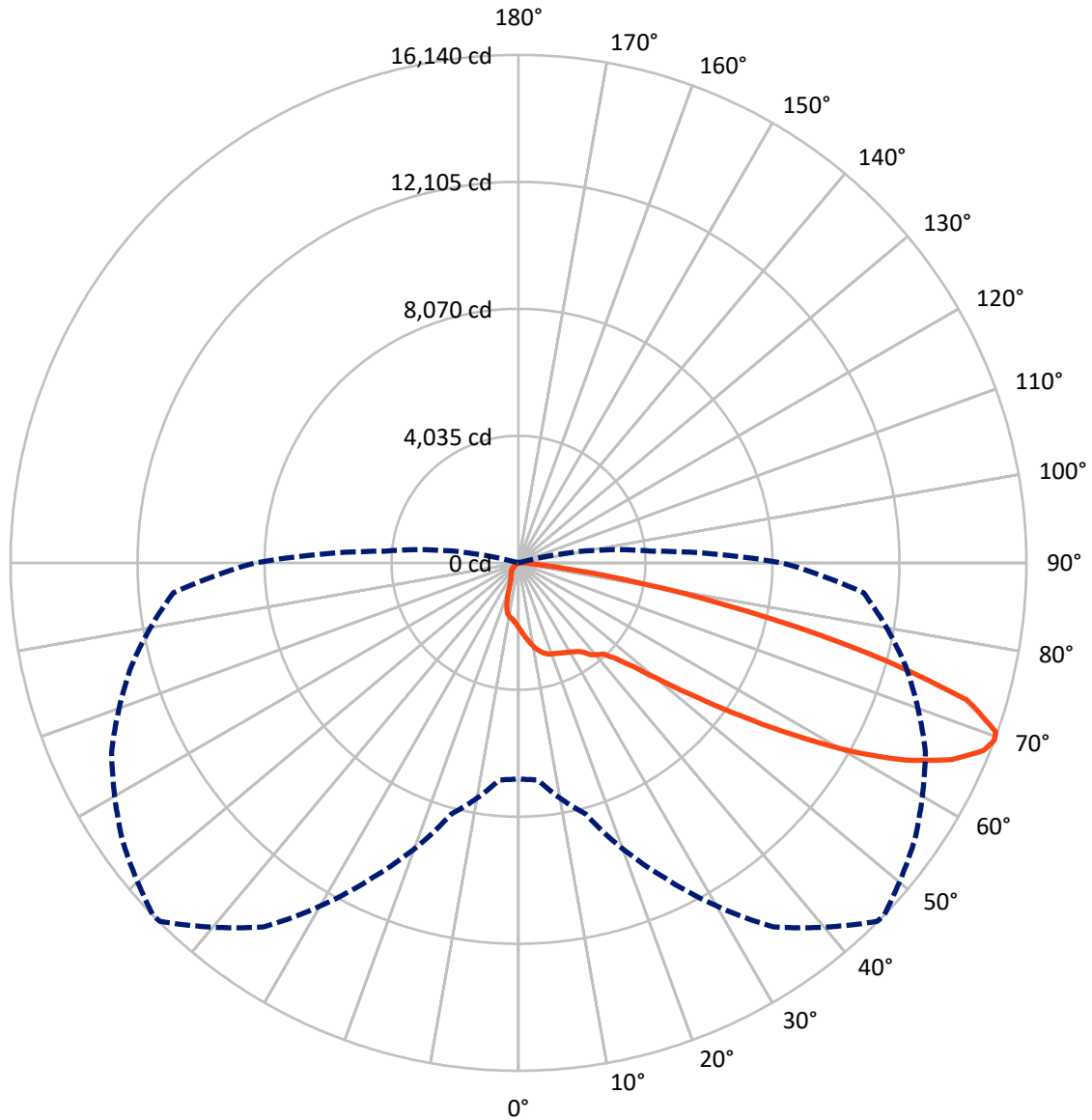
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 46-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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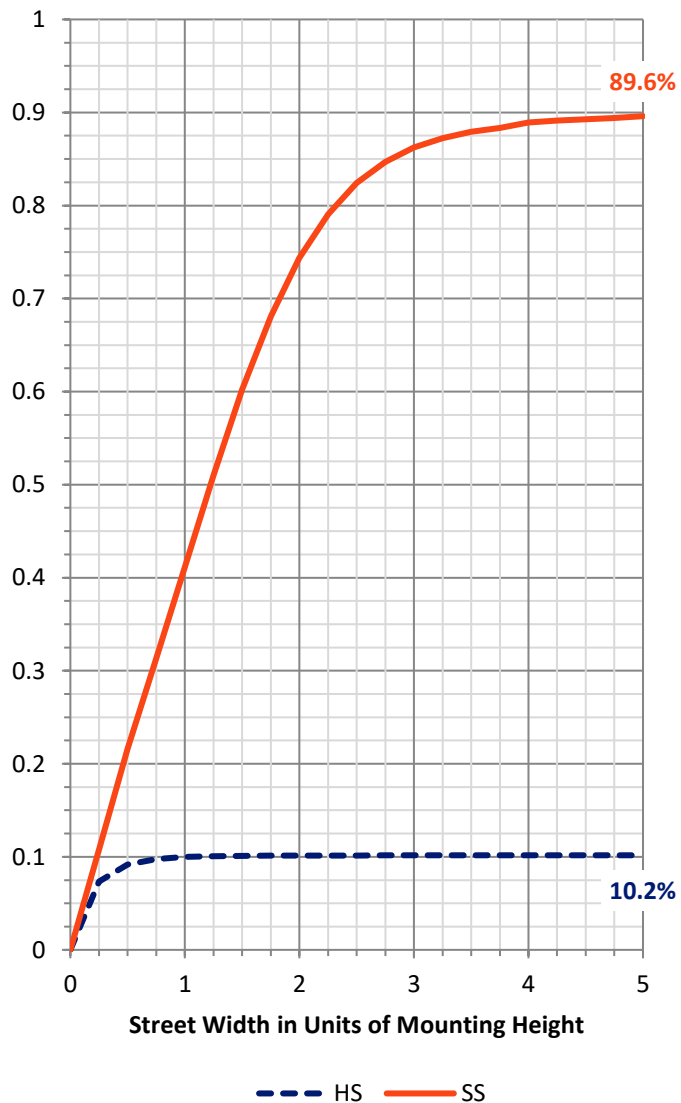
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2120.6	0.0	2120.6
	% Fixture	10.3	0.0	10.3
Street Side	Lumens	18542.4	0.0	18542.4
	% Fixture	89.7	0.0	89.7
Total	Lumens	20663.0	0.0	20663.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.1	1.0
10°-20°	625.2	3.0
20°-30°	983.2	4.8
30°-40°	1409.9	6.8
40°-50°	2436.8	11.8
50°-60°	4814.2	23.3
60°-70°	6728.3	32.6
70°-80°	3250.5	15.7
80°-90°	208.9	1.0
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°	20663.0	100.0
0°-180°	20663.0	100.0

Coefficient of Utilization



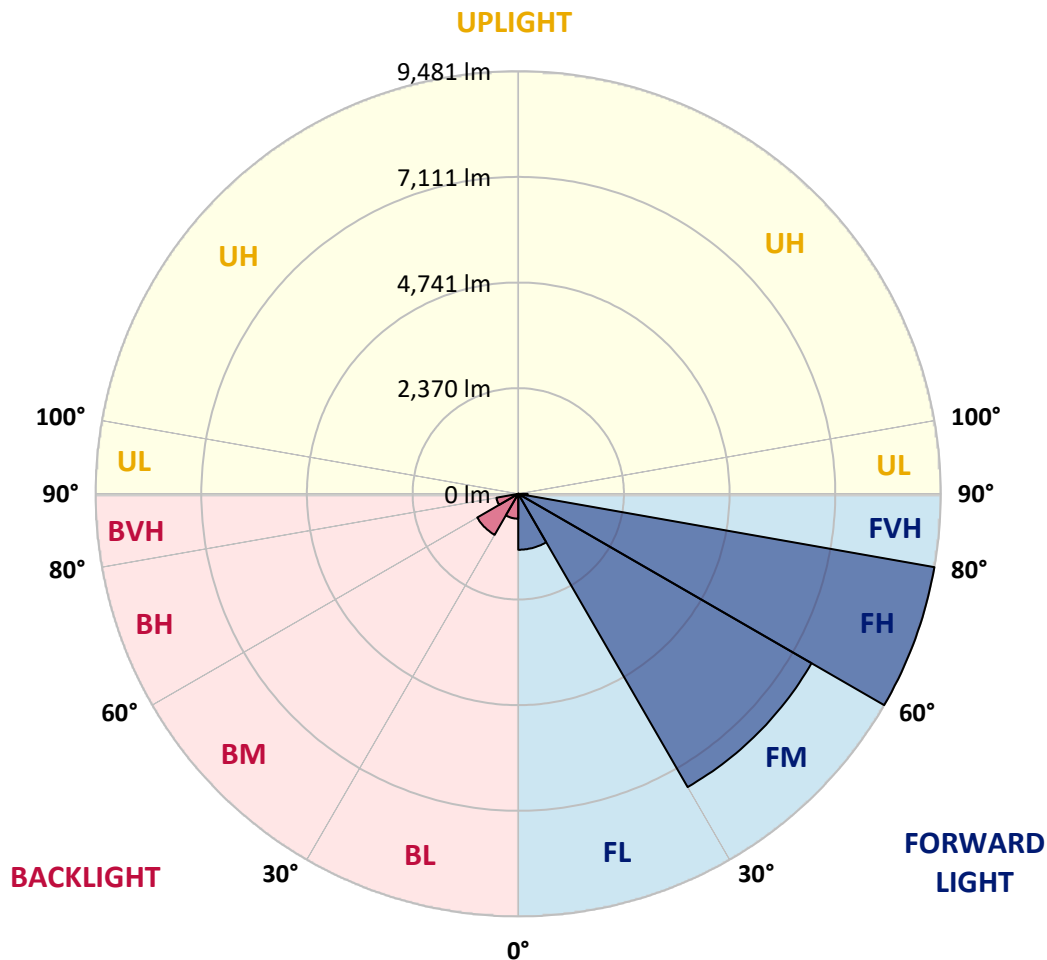
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1255.5	6.1			
FM (30°-60°)	7598.2	36.8			
FH (60°-80°)	9481.5	45.9			G4/12000
FVH (80°-90°)	207.2	1.0			G2/225
BL (0°-30°)	558.9	2.7	B2/1000		
BM (30°-60°)	1062.7	5.1	B2/2500		
BH (60°-80°)	497.2	2.4	B1/500		G1/500
BVH (80°-90°)	1.8	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	2070.4	2070.4	2070.4	2070.4	2070.4	2070.4	2070.4	2070.4	2070.4	2070.4	2070.4
2.5°	2300.0	2297.1	2283.5	2277.7	2244.7	2225.4	2217.6	2193.4	2158.5	2123.6	2084.9
5°	2561.5	2560.6	2535.4	2511.2	2449.2	2391.0	2380.4	2324.2	2245.7	2172.1	2098.5
7.5°	2828.9	2816.3	2791.2	2744.6	2654.6	2561.5	2552.8	2473.4	2362.0	2255.4	2149.8
10°	3055.6	3047.9	3014.9	2944.2	2838.6	2733.0	2722.4	2624.5	2498.6	2367.8	2233.1
12.5°	3232.0	3226.2	3182.6	3094.4	2982.0	2872.5	2858.0	2770.8	2636.1	2489.9	2331.0
15°	3339.5	3336.6	3283.3	3189.3	3078.9	2983.9	2971.4	2894.8	2769.8	2616.8	2437.5
17.5°	3364.7	3365.7	3310.4	3215.5	3124.4	3056.6	3046.9	2988.8	2884.2	2732.1	2544.1
20°	3308.5	3320.1	3270.7	3188.4	3132.2	3096.3	3088.6	3053.7	2965.5	2822.2	2629.4
22.5°	3229.1	3234.9	3201.0	3145.7	3122.5	3129.3	3125.4	3106.0	3031.4	2899.7	2713.6
25°	3180.6	3180.6	3160.3	3113.8	3129.3	3170.9	3171.9	3168.0	3108.9	2994.6	2816.3
27.5°	3178.7	3172.9	3149.6	3114.7	3157.4	3221.3	3225.2	3251.3	3214.5	3109.9	2944.2
30°	3256.2	3249.4	3200.0	3154.5	3208.7	3277.5	3287.2	3344.3	3325.9	3234.9	3086.6
32.5°	3437.4	3413.1	3303.7	3229.1	3269.7	3352.1	3364.7	3455.8	3484.8	3388.9	3224.2
35°	3685.4	3608.8	3450.9	3370.5	3374.4	3460.6	3472.2	3605.9	3692.1	3530.4	3330.8
37.5°	4027.4	3989.6	3732.8	3517.8	3535.2	3666.0	3699.9	3845.2	3821.0	3607.9	3451.9
40°	4777.2	4718.1	4444.9	3930.5	3689.2	3832.6	3843.3	3920.8	3922.7	3783.2	3703.8
42.5°	5798.4	5774.1	5486.4	4679.4	3992.5	3944.0	3963.4	4094.2	4240.5	4153.3	4149.4
45°	6929.0	6916.4	6611.2	5673.4	4605.7	4309.3	4333.5	4508.9	4788.8	4808.2	4931.3
47.5°	7838.7	7832.9	7657.5	6782.7	5544.5	4928.4	4936.1	5122.1	5614.3	5857.4	6054.1
50°	8668.0	8696.1	8557.5	7983.0	6823.4	5898.1	5879.7	6003.7	6794.3	7192.5	7436.6
52.5°	9820.9	9860.6	9472.1	9103.0	8165.2	7101.4	7086.9	7216.7	8212.6	8511.0	8554.6
55°	10839.1	10771.3	10464.2	10357.6	9801.5	8587.6	8583.7	8698.0	9584.5	9711.4	9791.8
57.5°	11288.6	11262.5	11410.7	11654.8	11515.3	10344.0	10335.3	10248.1	10812.0	10825.5	11072.6
60°	11572.5	11604.5	12058.8	12811.6	13159.4	12234.2	12178.0	11646.1	11984.2	11954.2	12218.7
62.5°	11359.3	11422.3	12240.0	13494.6	14389.8	13884.1	13804.6	12926.9	12986.0	12882.3	13128.4
65°	10227.8	10325.6	11665.5	13365.8	15000.1	15173.6	15093.2	14057.5	13781.4	13610.9	13474.3
67.5°	8304.7	8362.8	9761.8	12244.8	14725.0	15942.8	15926.3	15048.6	14382.0	13487.8	12427.9
69°	6863.1	6920.2	8266.9	11064.8	14119.5	16107.5	16139.5	15366.4	14267.7	12739.9	11011.5
70°	5812.9	5873.9	7128.5	10053.4	13417.1	16031.0	16088.1	15336.3	13940.3	11873.8	9768.6
72.5°	3048.9	3101.2	4388.7	6926.1	10937.9	14720.2	14893.6	14040.1	11816.6	8623.4	5776.1
75°	958.2	988.2	1713.8	3620.5	7488.9	11445.6	11485.3	11013.5	8390.9	4743.3	2405.6
77.5°	365.2	356.5	570.6	1334.1	3786.1	7207.0	7450.2	6882.5	4403.3	1677.0	555.1
80°	196.7	197.6	296.5	552.2	1619.9	3703.8	3909.2	3335.6	1564.6	523.2	127.9
82.5°	85.3	89.1	166.6	292.6	744.0	1366.0	1468.7	1222.6	597.8	351.7	47.5
85°	18.4	20.3	80.4	158.9	303.2	383.7	402.1	396.2	380.7	273.2	18.4
87.5°	0.0	0.0	35.8	57.2	76.5	87.2	76.5	99.8	210.2	184.1	9.7
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°	2070.4	2070.4	2070.4	2070.4	2070.4	2070.4	2070.4	2070.4	2070.4	2070.4	2070.4
2.5°	2072.3	2054.9	2024.8	1991.9	1968.6	1944.4	1925.0	1916.3	1906.6	1899.8	1908.6
5°	2068.4	2034.5	1976.4	1920.2	1879.5	1846.6	1819.4	1808.8	1798.1	1790.4	1789.4
7.5°	2102.3	2054.9	1965.7	1883.4	1820.4	1775.8	1739.0	1723.5	1710.9	1705.1	1700.3
10°	2167.2	2106.2	1987.0	1879.5	1798.1	1722.6	1643.1	1582.1	1542.4	1523.9	1517.2
12.5°	2251.5	2175.0	2027.7	1899.8	1781.6	1636.3	1467.8	1322.4	1228.5	1197.5	1179.0
15°	2350.3	2255.4	2081.0	1926.0	1721.6	1456.1	1170.3	980.4	893.2	875.8	856.4
17.5°	2445.3	2340.7	2145.0	1930.8	1589.8	1163.5	857.4	728.5	694.6	706.3	709.2
20°	2528.6	2424.9	2207.9	1888.2	1350.5	872.9	663.6	631.7	644.3	666.5	670.4
22.5°	2612.9	2506.3	2266.1	1775.8	1044.4	662.7	597.8	605.5	618.1	640.4	644.3
25°	2715.6	2605.1	2320.3	1569.5	783.8	563.8	567.7	579.4	591.9	612.3	614.2
27.5°	2833.8	2730.1	2356.2	1301.1	581.3	518.3	530.9	548.3	560.9	580.3	584.2
30°	2990.7	2894.8	2367.8	1023.1	487.3	477.6	483.4	504.8	523.2	540.6	543.5
32.5°	3138.0	3057.6	2329.0	772.1	451.5	439.8	439.8	452.4	473.8	490.2	494.1
35°	3273.6	3221.3	2205.0	564.8	424.3	405.0	395.3	395.3	408.8	422.4	426.3
37.5°	3452.9	3450.9	2004.5	450.5	398.2	375.9	355.6	340.1	335.2	338.1	340.1
40°	3760.0	3762.9	1742.9	404.0	375.9	345.9	314.9	286.8	260.6	251.9	250.9
42.5°	4239.5	4195.9	1468.7	381.7	356.5	314.9	268.4	230.6	189.9	177.3	176.3
45°	5001.0	4742.3	1178.1	361.4	336.2	280.0	221.9	170.5	137.6	127.9	127.9
47.5°	6110.3	5460.2	912.6	339.1	309.1	240.3	167.6	123.0	100.8	95.9	96.9
50°	7257.4	6163.6	699.5	311.0	276.1	198.6	124.0	89.1	76.5	76.5	77.5
52.5°	8274.6	6679.0	545.4	281.0	235.4	156.0	94.0	69.8	63.9	63.0	63.9
55°	9227.0	7011.3	417.6	246.1	187.0	116.3	71.7	57.2	53.3	51.3	50.4
57.5°	10145.4	7176.0	312.9	198.6	135.6	84.3	57.2	48.4	44.6	41.7	40.7
60°	10756.7	7042.3	215.1	146.3	94.0	61.0	47.5	41.7	36.8	33.9	32.9
62.5°	11101.6	6677.1	138.5	105.6	66.8	45.5	37.8	34.9	28.1	25.2	25.2
65°	10962.1	6074.5	96.9	75.6	48.4	33.9	28.1	28.1	20.3	16.5	15.5
67.5°	9714.3	5131.8	73.6	56.2	34.9	25.2	21.3	24.2	12.6	7.8	7.8
69°	8358.0	4253.1	63.0	46.5	29.1	20.3	18.4	22.3	8.7	5.8	4.8
70°	7264.2	3668.9	57.2	40.7	24.2	17.4	16.5	21.3	8.7	4.8	3.9
72.5°	4346.1	2046.1	43.6	29.1	15.5	13.6	13.6	24.2	8.7	4.8	3.9
75°	1756.5	720.8	32.0	20.3	11.6	11.6	16.5	31.0	7.8	3.9	2.9
77.5°	398.2	157.9	18.4	12.6	7.8	11.6	19.4	24.2	4.8	1.9	0.0
80°	96.9	38.8	11.6	7.8	4.8	8.7	14.5	13.6	1.0	0.0	0.0
82.5°	32.0	13.6	4.8	3.9	1.0	2.9	6.8	3.9	0.0	0.0	0.0
85°	13.6	7.8	1.9	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
87.5°	8.7	2.9	0.0	0.0	0.0	0.0	0.0	0.0	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)