

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: P237537

Luminaire Tested: **CTN-8-4-D-E1-T3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237537
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-26)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-8-4-D-E1-T3-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 4000K LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39968 lumens
Efficiency: N/A
Efficacy: 123.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 325
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: 25 FT

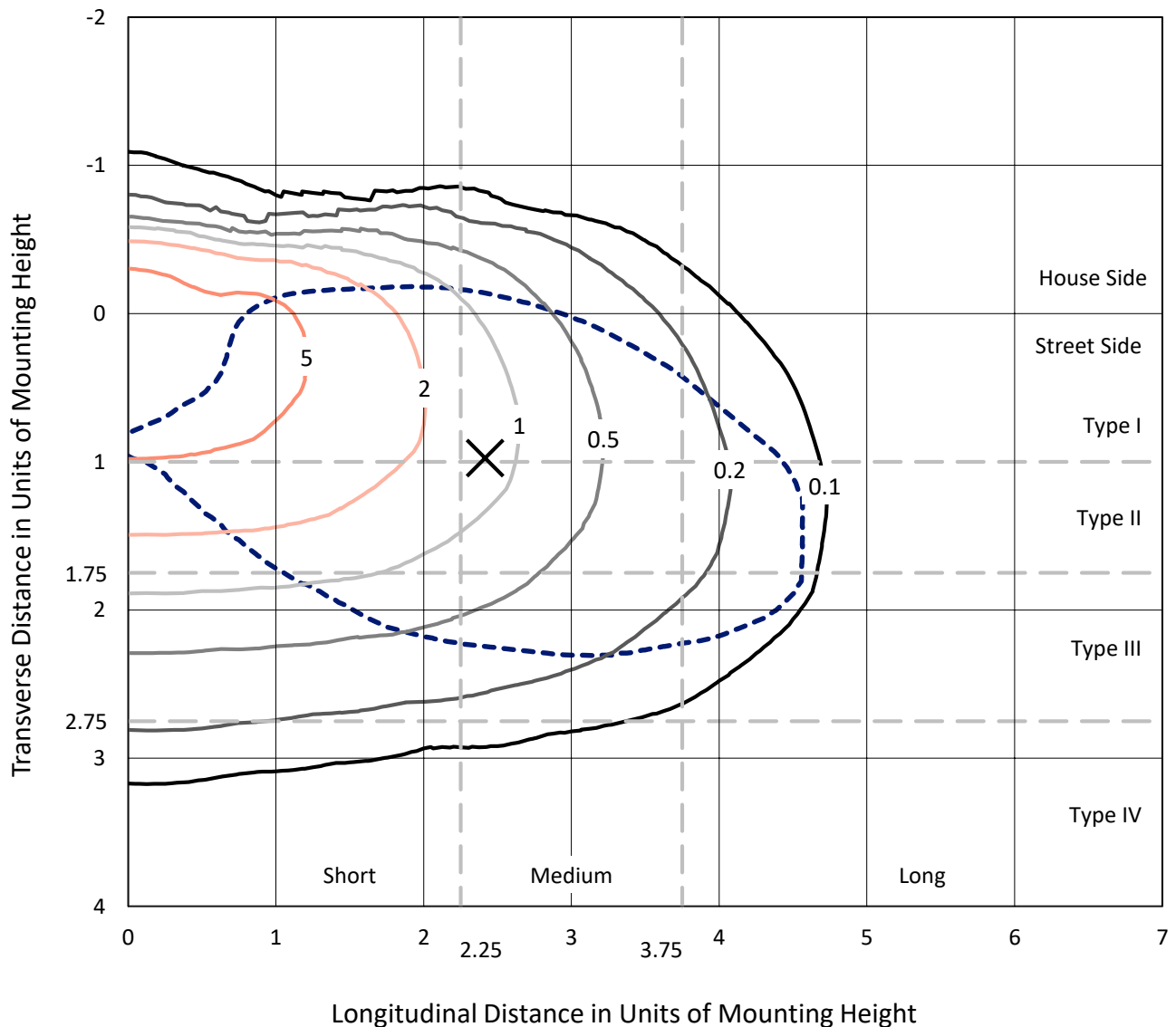


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

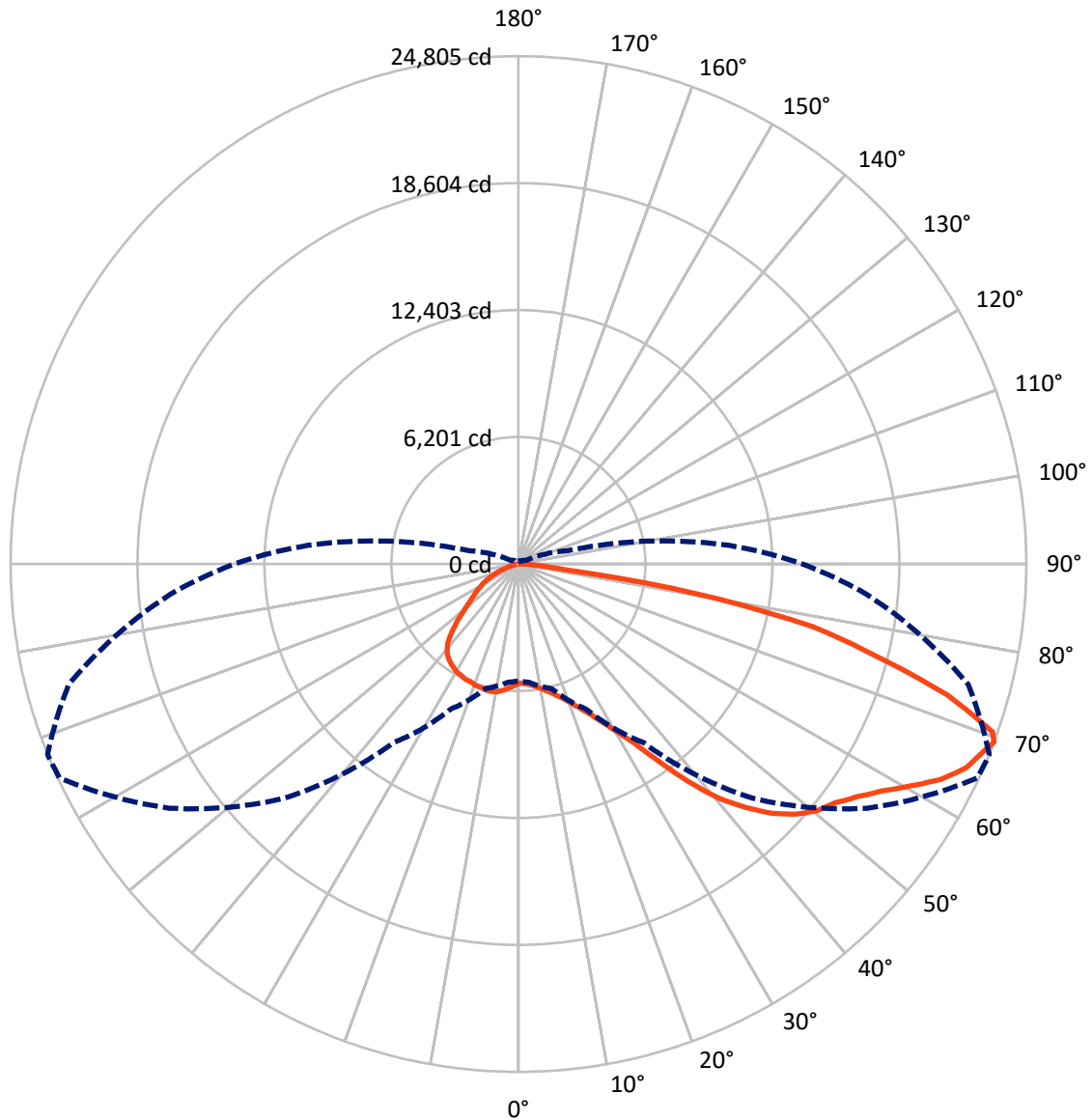


Based on 30 foot mounting height. Maximum calculated value = 7.9 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 68-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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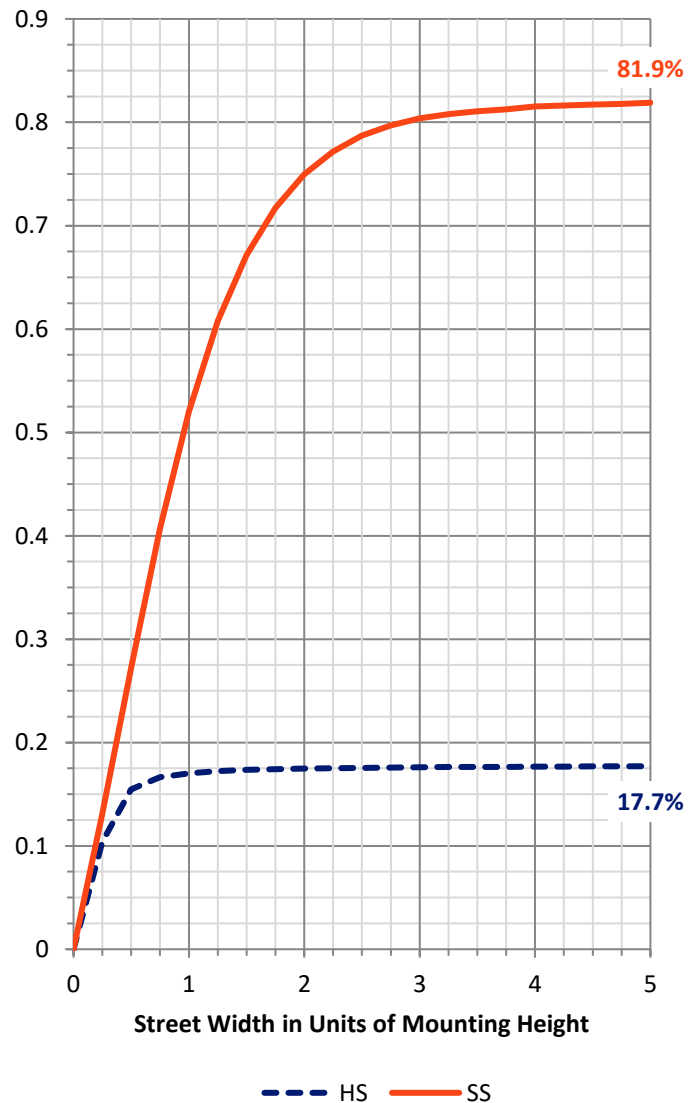
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7172.8	0.0	7172.8
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	32795.2	0.0	32795.2
	% Fixture	82.1	0.0	82.1
Total	Lumens	39968.0	0.0	39968.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	583.8	1.5
10°-20°	1832.1	4.6
20°-30°	3131.8	7.8
30°-40°	4825.7	12.1
40°-50°	6925.1	17.3
50°-60°	8334.6	20.9
60°-70°	8746.4	21.9
70°-80°	5067.1	12.7
80°-90°	521.4	1.3
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°	39968.0	100.0
0°-180°	39968.0	100.0

Coefficient of Utilization



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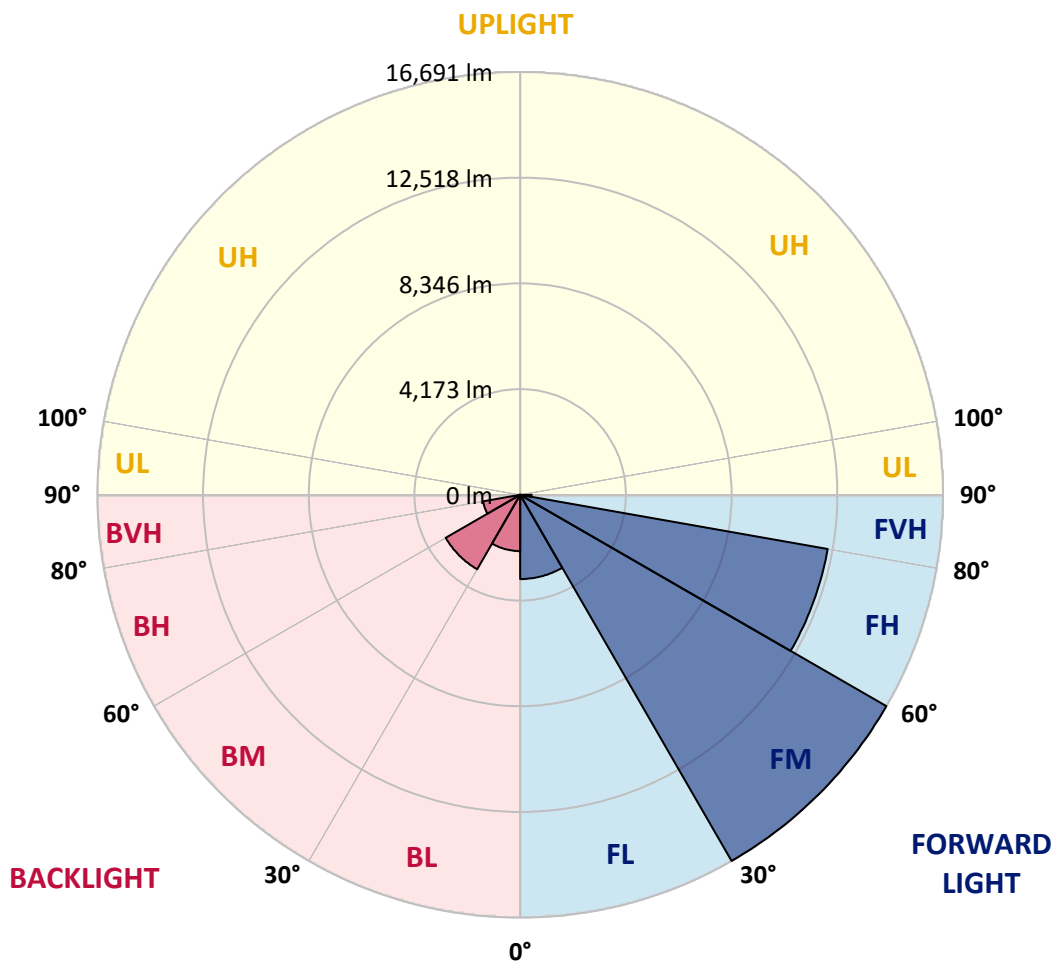
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3325.2	8.3			
FM (30°-60°)	16691.2	41.8			
FH (60°-80°)	12325.7	30.8			G5
FVH (80°-90°)	453.1	1.1			G3/500
BL (0°-30°)	2222.5	5.6	B3/2500		
BM (30°-60°)	3394.2	8.5	B3/5000		
BH (60°-80°)	1487.9	3.7	B3/2500		G3/2500
BVH (80°-90°)	68.2	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	5813.6	5813.6	5813.6	5813.6	5813.6	5813.6	5813.6	5813.6	5813.6	5813.6	5813.6
2.5°	5878.6	5831.6	5837.1	5874.5	5763.7	5810.8	5781.7	5842.6	5852.3	5823.2	5849.6
5°	5995.0	5954.8	5953.4	5990.8	5867.6	5903.6	5857.9	5899.4	5911.9	5881.4	5927.1
7.5°	6220.7	6177.8	6169.5	6206.8	6050.4	6061.4	5999.1	6019.9	6031.0	5989.4	6035.1
10°	6544.7	6497.7	6467.2	6488.0	6312.1	6284.4	6177.8	6175.0	6191.6	6134.8	6208.2
12.5°	6907.6	6852.2	6807.9	6812.0	6611.2	6564.1	6422.9	6373.0	6384.1	6307.9	6396.6
15°	7302.3	7221.9	7180.4	7181.8	6956.0	6877.1	6695.7	6614.0	6607.1	6533.7	6584.9
17.5°	7777.3	7712.2	7659.5	7631.8	7392.3	7235.8	7019.7	6913.1	6874.3	6825.9	6799.6
20°	8335.3	8253.6	8198.2	8188.6	7895.0	7687.2	7400.6	7259.3	7213.6	7173.5	7055.8
22.5°	8957.1	8874.0	8797.9	8785.4	8473.8	8223.2	7838.2	7663.7	7623.5	7577.8	7342.4
25°	9530.5	9520.8	9436.3	9422.4	9121.9	8796.5	8345.0	8122.1	8122.1	8068.1	7706.6
27.5°	10170.3	10184.1	10107.9	10091.3	9808.8	9448.8	8911.4	8698.2	8742.5	8645.5	8165.0
30°	10844.7	10815.6	10794.8	10812.8	10551.1	10170.3	9610.8	9430.8	9500.0	9389.2	8779.9
32.5°	11448.5	11426.3	11440.2	11509.4	11321.1	10969.3	10488.8	10376.6	10443.1	10512.3	9882.2
35°	11926.2	11879.1	12053.6	12206.0	12152.0	11818.2	11431.8	11668.7	11851.4	12167.2	11506.6
37.5°	12347.2	12312.6	12524.5	12836.1	12903.9	12718.4	12599.3	13259.8	13468.9	13894.1	12931.6
40°	12557.7	12550.8	12811.1	13216.9	13492.5	13613.0	13822.1	14722.2	15026.9	15143.2	14016.0
42.5°	12489.9	12512.0	12971.8	13597.7	14043.6	14560.2	14981.2	15971.3	16251.1	16155.5	14966.0
45°	12300.1	12311.2	12777.9	13754.2	14521.4	15533.7	16096.0	17129.1	17377.0	17040.4	15722.1
47.5°	12037.0	12041.2	12534.2	13646.2	14911.9	16414.5	17057.1	18054.1	18254.9	17779.9	16266.3
50°	11681.1	11688.0	12276.6	13510.5	15248.5	17136.0	17809.0	18771.5	18926.6	18304.8	16737.2
52.5°	11231.0	11292.0	11935.9	13293.1	15459.0	17648.4	18378.2	19297.7	19373.9	18932.1	17154.0
55°	10711.7	10775.4	11502.5	12998.1	15540.7	17939.2	18777.0	19945.8	20067.7	19632.9	17493.3
57.5°	10096.9	10184.1	10949.9	12518.9	15349.6	18061.1	19182.8	20746.3	20911.1	20365.4	17842.3
60°	9383.7	9491.7	10297.7	11920.7	14907.8	18189.9	19941.7	21819.5	22010.6	21153.4	18146.9
62.5°	8638.6	8707.9	9436.3	11105.0	14200.1	18289.6	20758.7	23142.0	23158.7	21844.4	18315.9
65°	7641.5	7714.9	8367.2	10074.7	13138.0	17972.4	21171.4	24069.9	24020.0	22385.9	18259.1
67.5°	6500.4	6569.7	7102.8	8793.7	11679.7	17083.4	21030.2	24439.6	24472.9	22779.2	17714.9
69°	5708.3	5799.7	6302.4	7820.2	10649.4	16173.5	20793.4	24727.7	24805.2	22743.2	17084.8
70°	5031.1	5148.8	5626.6	6960.2	9777.0	15346.8	20336.4	24564.3	24569.8	22379.0	16504.5
72.5°	3286.2	3358.2	3441.3	4516.0	7033.6	12161.7	17996.0	21784.9	21928.9	19969.4	14430.0
75°	1625.8	1689.5	1999.7	2388.8	3617.2	8147.0	14268.0	17847.8	18120.6	16958.7	11822.4
77.5°	897.4	909.8	1019.2	1564.9	1875.1	3683.7	9752.0	14227.8	14705.6	13820.7	8490.4
80°	559.5	556.7	581.6	728.4	1051.1	1746.3	4118.5	7985.0	8843.6	7216.4	3355.5
82.5°	436.2	427.9	429.3	470.8	444.5	822.6	1714.4	2325.1	2345.9	2082.8	1305.9
85°	223.0	252.0	299.1	313.0	263.1	447.3	789.4	918.1	940.3	824.0	680.0
87.5°	74.8	76.2	80.3	78.9	70.6	153.7	292.2	340.7	303.3	171.7	232.7
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°	5813.6	5813.6	5813.6	5813.6	5813.6	5813.6	5813.6	5813.6	5813.6	5813.6	5813.6
2.5°	5889.7	5877.3	5902.2	5959.0	5911.9	5954.8	5911.9	6055.9	6039.3	6029.6	6057.3
5°	5971.4	5970.0	6010.2	6101.6	6097.4	6173.6	6132.1	6274.7	6253.9	6251.2	6276.1
7.5°	6082.2	6108.5	6151.5	6245.6	6247.0	6309.3	6262.2	6374.4	6328.7	6317.6	6352.3
10°	6251.2	6258.1	6291.3	6356.4	6265.0	6292.7	6215.2	6303.8	6240.1	6233.2	6284.4
12.5°	6413.2	6422.9	6373.0	6352.3	6234.5	6198.5	6062.8	6109.9	6036.5	6029.6	6054.5
15°	6586.3	6521.2	6402.1	6334.3	6130.7	6000.5	5848.2	5755.4	5629.4	5571.2	5593.4
17.5°	6766.3	6640.3	6417.3	6252.5	5979.7	5790.0	5486.7	5328.9	5141.9	5046.4	5028.3
20°	6963.0	6785.7	6454.7	6211.0	5827.4	5453.5	5083.7	4722.3	4509.0	4410.7	4384.4
22.5°	7184.5	6968.5	6507.4	6072.5	5589.2	5135.0	4510.4	4054.8	3744.6	3649.0	3622.7
25°	7461.5	7173.5	6579.4	6037.9	5360.7	4614.3	3837.4	3320.8	2959.4	2814.0	2783.5
27.5°	7798.0	7456.0	6697.1	5873.1	4959.1	4034.0	3168.5	2574.4	2199.1	2027.4	1990.0
30°	8288.3	7817.4	6776.0	5776.2	4601.8	3431.6	2462.2	1798.9	1443.0	1317.0	1283.7
32.5°	9254.9	8437.8	6936.7	5553.2	4074.2	2730.9	1695.0	1103.7	854.4	782.4	754.7
35°	10691.0	9606.6	7167.9	5288.7	3481.5	1942.9	1006.8	639.8	513.8	487.5	479.2
37.5°	11999.6	10760.2	7615.2	4881.6	2703.2	1195.1	583.0	409.9	378.1	382.2	382.2
40°	12987.0	11617.4	8137.3	4344.2	1833.5	670.3	400.2	340.7	347.6	349.0	347.6
42.5°	13912.1	12402.6	8389.4	3751.5	1062.2	444.5	347.6	317.1	322.7	318.5	315.7
45°	14639.1	12964.9	8464.1	2953.9	581.6	397.4	326.8	295.0	292.2	295.0	297.7
47.5°	15111.4	13308.3	8293.8	2261.4	439.0	369.8	314.4	279.7	272.8	292.2	290.8
50°	15461.7	13543.7	7633.2	1720.0	427.9	346.2	299.1	261.7	264.5	288.0	285.3
52.5°	15716.5	13604.7	6909.0	1379.3	408.5	329.6	285.3	253.4	250.7	268.7	270.0
55°	15918.7	13441.2	6457.5	1085.7	391.9	313.0	274.2	245.1	231.3	236.8	235.4
57.5°	16044.7	13254.3	5942.3	905.7	376.7	295.0	259.0	223.0	202.2	203.6	202.2
60°	16017.0	13129.7	5351.0	742.3	357.3	278.4	238.2	199.4	178.6	173.1	173.1
62.5°	15961.7	12873.5	4740.3	646.7	340.7	272.8	213.3	181.4	166.2	160.6	160.6
65°	15585.0	12262.7	3923.2	553.9	324.1	257.6	199.4	174.5	156.5	150.9	150.9
67.5°	14650.2	11253.2	3038.3	481.9	311.6	232.7	195.3	170.3	150.9	144.0	144.0
69°	13860.9	10355.8	2495.5	443.1	299.1	221.6	195.3	171.7	148.2	139.9	139.9
70°	13244.6	9650.9	2064.8	419.6	286.7	214.6	195.3	173.1	146.8	137.1	135.7
72.5°	11365.4	7534.9	1146.6	355.9	238.2	195.3	191.1	174.5	139.9	126.0	124.6
75°	8720.3	5297.0	682.7	300.5	200.8	178.6	181.4	167.6	128.8	113.6	113.6
77.5°	5449.3	2433.2	508.2	235.4	163.4	155.1	157.9	148.2	116.3	103.9	103.9
80°	1861.2	1098.2	383.6	181.4	117.7	120.5	130.2	124.6	103.9	94.2	92.8
82.5°	1019.2	714.6	271.4	126.0	81.7	99.7	99.7	101.1	90.0	83.1	81.7
85°	553.9	372.5	167.6	76.2	58.2	73.4	70.6	76.2	73.4	67.9	66.5
87.5°	192.5	127.4	55.4	27.7	23.5	24.9	29.1	38.8	37.4	38.8	40.2
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)