

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: P237551

Luminaire Tested: **CTN-8-3-D-E1-T2-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237551
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-25)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-8-3-D-E1-T2-7030-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27635 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B3 - U0 - G3

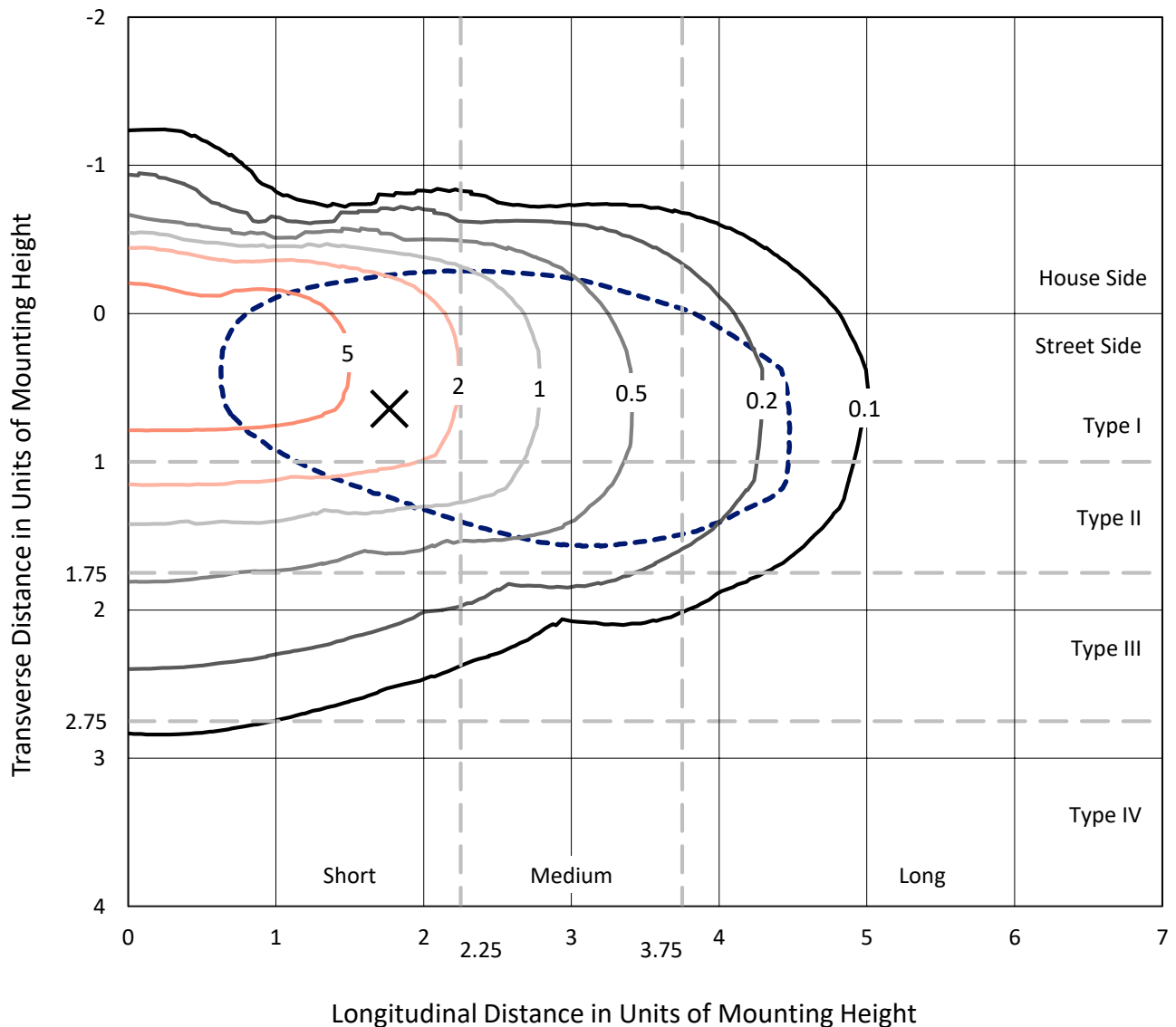
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

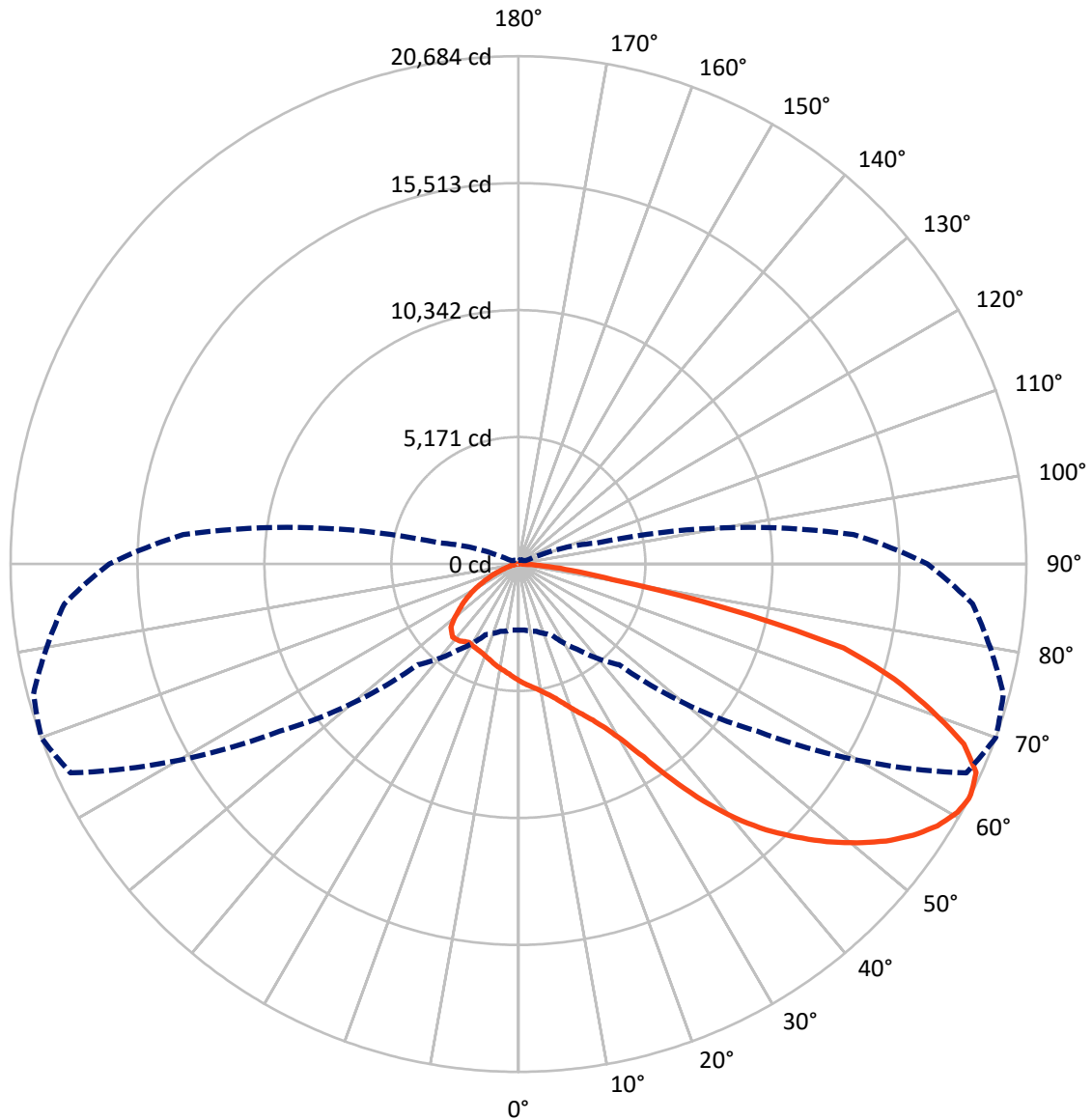
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.8 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 62-Deg Vertical

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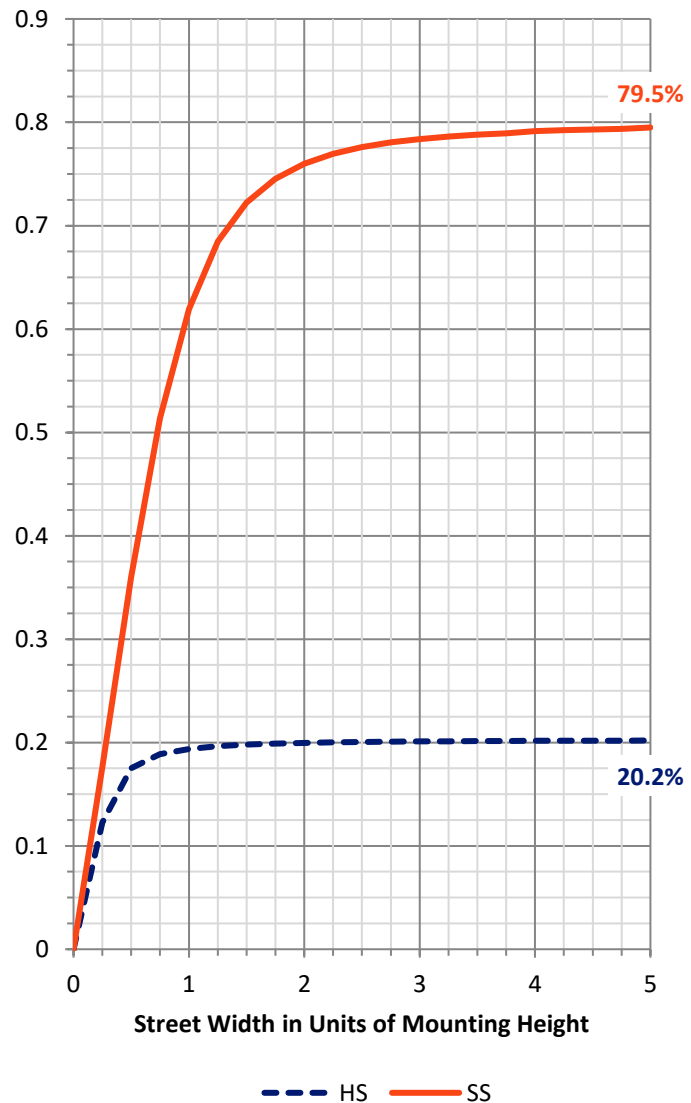
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5653.0	0.0	5653.0
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	21982.0	0.0	21982.0
	% Fixture	79.5	0.0	79.5
Total	Lumens	27635.0	0.0	27635.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	452.9	1.6
10°-20°	1377.8	5.0
20°-30°	2319.7	8.4
30°-40°	3502.7	12.7
40°-50°	4911.9	17.8
50°-60°	5740.8	20.8
60°-70°	5569.6	20.2
70°-80°	3256.0	11.8
80°-90°	503.6	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°	27635.0	100.0
0°-180°	27635.0	100.0



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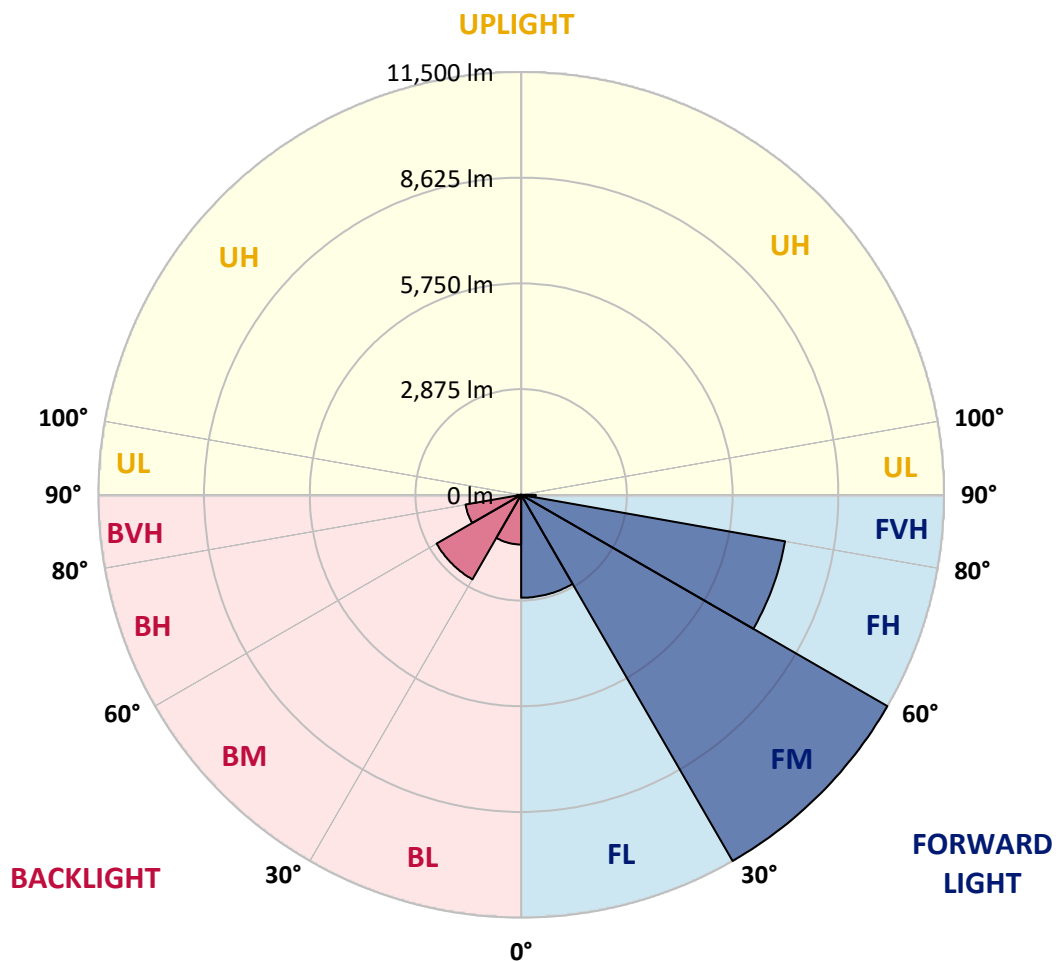
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2798.8	10.1			
FM	(30°-60°)	11500.0	41.6			
FH	(60°-80°)	7288.6	26.4			G3/7500
FVH	(80°-90°)	394.7	1.4			G3/500
BL	(0°-30°)	1351.6	4.9	B3/2500		
BM	(30°-60°)	2655.4	9.6	B3/5000		
BH	(60°-80°)	1537.1	5.6	B3/2500		G3/2500
BVH	(80°-90°)	109.0	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	4754.3	4754.3	4754.3	4754.3	4754.3	4754.3	4754.3	4754.3	4754.3	4754.3	4754.3
2.5°	5159.4	5125.2	5110.6	5132.1	4988.6	4991.5	4922.2	4911.5	4878.3	4831.4	4779.7
5°	5454.2	5414.2	5393.7	5406.4	5255.1	5228.7	5115.5	5059.8	4994.4	4935.9	4823.6
7.5°	5737.4	5696.3	5680.7	5673.9	5491.3	5451.3	5306.8	5208.2	5119.4	5044.2	4891.9
10°	6022.4	5980.4	5948.2	5957.0	5765.7	5694.4	5527.5	5391.8	5277.5	5179.9	4970.0
12.5°	6305.5	6254.8	6219.6	6219.6	6031.2	5961.9	5774.4	5600.7	5455.2	5332.2	5068.6
15°	6595.5	6529.1	6521.3	6521.3	6321.1	6237.2	6052.7	5860.4	5681.7	5523.6	5187.7
17.5°	6895.2	6811.2	6809.3	6822.0	6638.4	6543.7	6370.0	6190.3	5962.9	5762.7	5333.2
20°	7092.4	7017.2	6999.6	7037.7	6893.2	6831.7	6645.3	6519.3	6300.6	6062.4	5520.6
22.5°	7242.7	7196.8	7213.4	7275.9	7205.6	7152.9	6956.7	6843.4	6646.2	6402.2	5773.5
25°	7394.0	7363.8	7401.8	7512.2	7518.0	7532.7	7368.6	7224.2	7040.6	6822.9	6102.5
27.5°	7347.2	7338.4	7453.6	7681.0	7806.0	7872.4	7780.6	7729.9	7561.9	7332.5	6516.4
30°	7381.3	7359.9	7498.5	7786.5	8064.7	8257.0	8257.0	8372.2	8299.0	8068.6	7148.0
32.5°	7279.8	7239.8	7398.9	7811.9	8290.2	8664.1	8830.1	9238.1	9366.0	9283.0	8400.5
35°	6812.2	6842.5	7153.9	7710.3	8445.4	9062.4	9501.7	10376.4	10769.9	10863.6	9842.4
37.5°	6520.3	6533.0	6850.3	7544.4	8500.1	9453.9	10236.8	11690.5	12247.9	12305.5	11107.6
40°	6118.1	6165.9	6521.3	7321.8	8468.9	9784.8	11028.6	12985.9	13605.8	13558.0	12214.7
42.5°	5800.8	5814.5	6124.9	6968.4	8332.2	10048.4	11827.1	14162.3	14811.5	14677.7	13309.1
45°	5405.4	5430.8	5724.7	6529.1	8089.1	10182.2	12516.3	15265.4	15860.0	15693.0	14257.0
47.5°	4927.1	5038.4	5345.9	6055.6	7677.1	10168.5	13100.1	16220.2	16898.7	16641.9	15143.4
50°	3968.4	4104.1	4719.1	5629.0	7137.3	9977.2	13564.8	17271.6	17852.5	17593.8	15952.7
52.5°	3466.6	3493.0	3806.4	5149.7	6504.7	9549.6	13881.1	18140.5	18745.7	18473.4	16730.8
55°	3240.1	3267.5	3425.6	4373.5	5923.8	8792.0	13997.3	18969.3	19506.2	19193.8	17372.2
57.5°	3042.0	3050.7	3237.2	3699.0	5370.3	7794.3	13752.3	19660.5	20120.3	19695.6	17817.3
60°	2815.5	2850.6	3034.1	3376.8	4746.5	6635.5	12912.7	20102.7	20537.1	20159.3	18279.1
62°	2688.6	2697.3	2840.9	3176.7	4263.2	5797.9	11867.1	20128.1	20683.6	20444.4	18563.2
62.5°	2651.5	2657.3	2793.0	3125.9	4163.7	5631.9	11582.1	20107.6	20674.8	20494.2	18625.6
65°	2438.6	2452.3	2574.3	2885.8	3727.3	4984.7	10246.6	19772.7	20486.4	20410.2	18619.8
67.5°	2179.9	2183.8	2313.7	2593.9	3277.2	4376.5	8606.5	19132.3	19563.8	19465.2	17804.6
70°	1782.6	1853.9	1995.4	2242.4	2711.0	3630.6	6546.7	17137.9	17845.6	17943.3	16344.2
72.5°	1355.0	1350.1	1399.9	1571.7	1974.9	2789.1	4419.4	14359.5	15999.6	16527.7	14732.4
75°	836.6	868.9	1077.8	1215.4	1415.5	1967.1	2770.6	9995.7	13681.0	14593.8	13022.0
77.5°	650.2	656.0	764.4	1002.6	1159.8	1394.1	1727.9	5446.4	8576.3	10846.0	10142.1
80°	495.0	505.7	577.0	628.7	816.1	849.3	1152.9	2817.4	3905.9	5470.8	6813.2
82.5°	298.7	315.3	381.7	412.0	450.0	425.6	619.9	1520.0	2165.3	2799.9	3469.5
85°	150.3	180.6	253.8	240.2	204.0	188.4	265.5	735.1	1034.8	1369.7	1592.2
87.5°	38.1	45.9	59.6	71.3	60.5	49.8	72.2	199.2	205.0	196.2	549.6
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°	4754.3	4754.3	4754.3	4754.3	4754.3	4754.3	4754.3	4754.3	4754.3	4754.3	4754.3
2.5°	4762.1	4722.1	4648.8	4606.9	4502.4	4462.4	4387.2	4414.5	4398.0	4381.4	4382.3
5°	4769.9	4697.7	4558.1	4457.5	4306.2	4229.1	4130.5	4114.8	4071.9	4045.5	4048.5
7.5°	4786.5	4683.0	4485.8	4325.7	4112.9	3991.8	3860.0	3837.6	3773.2	3743.9	3747.8
10°	4828.5	4706.4	4439.0	4203.7	3963.5	3795.6	3641.4	3591.6	3530.1	3496.9	3494.9
12.5°	4892.9	4741.6	4372.6	4110.9	3819.0	3601.3	3423.7	3343.6	3255.8	3226.5	3229.4
15°	4995.4	4786.5	4316.9	3983.1	3644.3	3417.8	3198.2	3101.5	3008.8	2974.6	2971.7
17.5°	5120.4	4827.5	4277.9	3832.7	3493.0	3221.6	3028.3	2896.5	2740.3	2717.8	2693.4
20°	5244.4	4909.5	4242.7	3723.4	3313.4	3024.4	2771.5	2636.8	2413.3	2329.3	2299.0
22.5°	5425.0	5039.3	4237.8	3593.5	3132.7	2808.6	2467.9	2250.2	2004.2	1861.7	1830.4
25°	5666.1	5181.9	4250.5	3494.9	2930.7	2534.3	2074.5	1760.2	1525.9	1364.8	1331.6
27.5°	5979.5	5376.1	4288.6	3386.6	2747.1	2205.3	1633.2	1310.1	1111.9	977.2	946.0
30°	6441.2	5702.2	4348.2	3286.0	2479.6	1776.8	1200.8	944.0	789.8	706.8	705.8
32.5°	7519.0	6430.5	4382.3	3161.1	2230.7	1343.3	864.0	683.4	560.4	529.1	555.5
35°	8754.9	7462.4	4645.9	3026.3	1841.2	988.0	617.0	486.2	435.4	443.2	457.9
37.5°	9895.1	8454.2	5048.1	2807.7	1474.1	696.1	443.2	386.6	375.9	404.2	430.5
40°	10904.6	9311.4	5392.7	2567.5	1042.6	486.2	355.4	357.3	346.6	359.3	368.0
42.5°	11894.5	10106.0	5756.9	2244.4	695.1	359.3	321.2	338.8	326.1	328.0	315.3
45°	12878.5	10944.6	5914.0	1845.1	465.7	311.4	300.7	321.2	320.2	312.4	293.8
47.5°	13727.9	11522.5	6113.2	1392.1	346.6	283.1	286.0	300.7	310.4	296.8	288.0
50°	14458.1	12135.6	5959.9	921.6	309.5	264.6	275.3	275.3	290.9	267.5	256.8
52.5°	15156.1	12745.8	5566.5	607.2	284.1	251.9	262.6	255.8	262.6	239.2	236.2
55°	15574.9	13061.1	5091.1	473.5	268.5	241.1	246.0	244.1	238.2	213.8	218.7
57.5°	16035.7	13424.2	4499.5	397.3	261.6	228.4	229.4	226.5	208.9	192.3	193.3
60°	16403.7	13695.6	3866.9	350.5	253.8	221.6	207.9	203.1	178.7	168.9	169.9
62°	16661.5	13708.3	3315.3	326.1	244.1	216.7	195.2	184.5	157.2	149.4	148.4
62.5°	16689.8	13660.5	3180.6	320.2	240.2	214.8	194.3	178.7	151.3	145.5	143.5
65°	16584.3	13128.4	2537.2	288.0	223.6	203.1	180.6	155.2	129.8	122.0	119.1
67.5°	15799.4	12175.6	1937.8	261.6	203.1	195.2	166.9	136.7	115.2	105.4	103.5
70°	14268.7	10886.0	1383.3	228.4	182.6	177.7	167.9	125.0	106.4	92.7	90.8
72.5°	12568.1	9513.4	941.1	203.1	162.1	146.4	124.0	118.1	99.6	82.0	80.1
75°	10695.7	7576.6	669.7	174.7	139.6	124.0	104.5	109.3	93.7	73.2	71.3
77.5°	8206.3	5572.4	496.9	143.5	108.4	100.6	87.9	96.6	84.9	66.4	65.4
80°	5603.6	3848.3	353.4	108.4	71.3	71.3	74.2	83.0	75.2	59.6	58.6
82.5°	3150.3	2025.7	208.9	78.1	48.8	48.8	57.6	67.4	62.5	51.7	50.8
85°	1305.2	733.2	110.3	48.8	32.2	33.2	41.0	49.8	48.8	41.0	40.0
87.5°	454.0	184.5	32.2	16.6	13.7	14.6	16.6	23.4	23.4	20.5	21.5
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)