

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: P591426

Luminaire Tested: **CTN-CA10-760-740-U-T3-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591426  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-9)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-760-740-U-T3-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 55015 lumens  
Efficiency: N/A  
Efficacy: 72.2 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B5 - U0 - G4

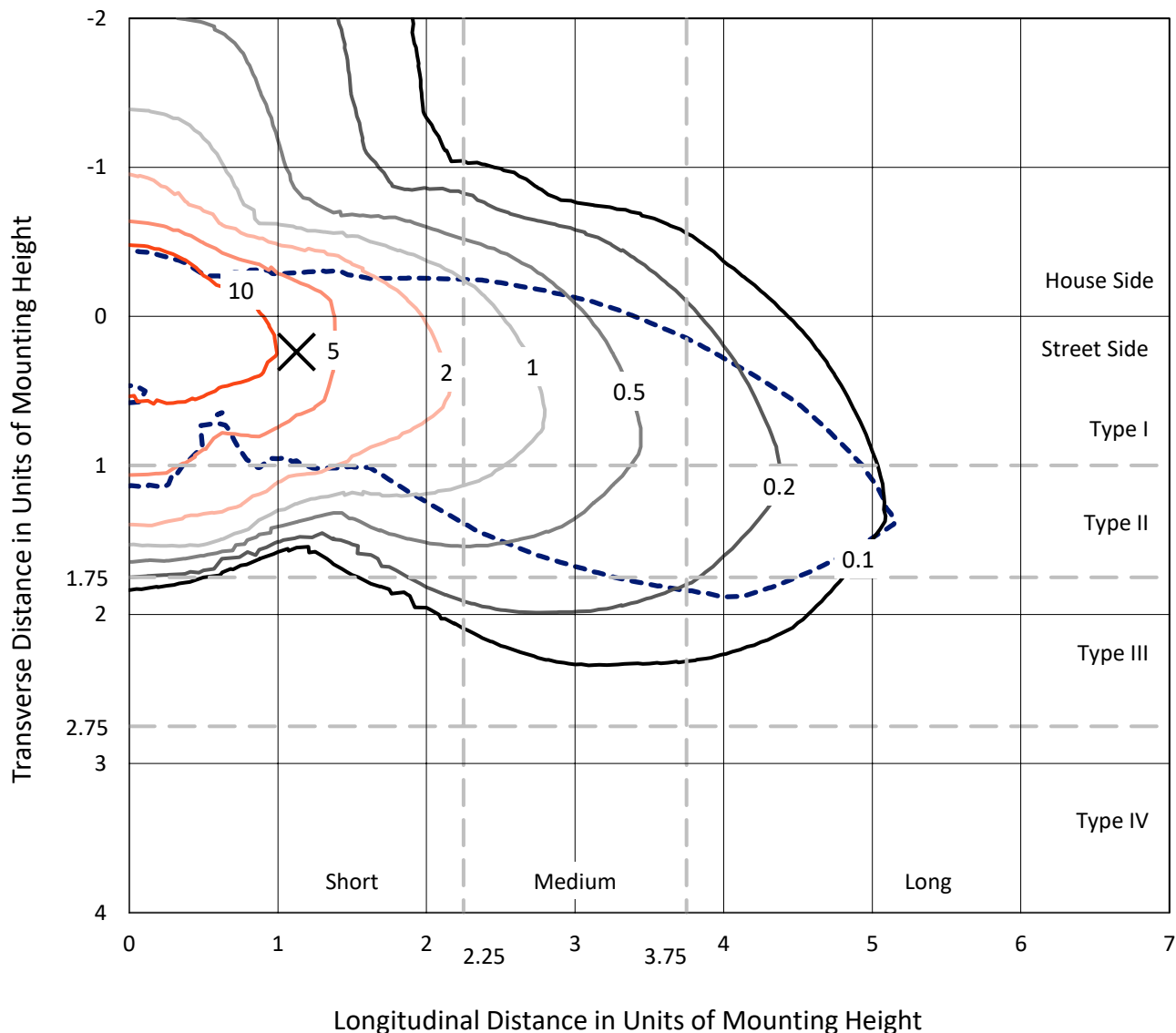
Input Watts (W): 761.9  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

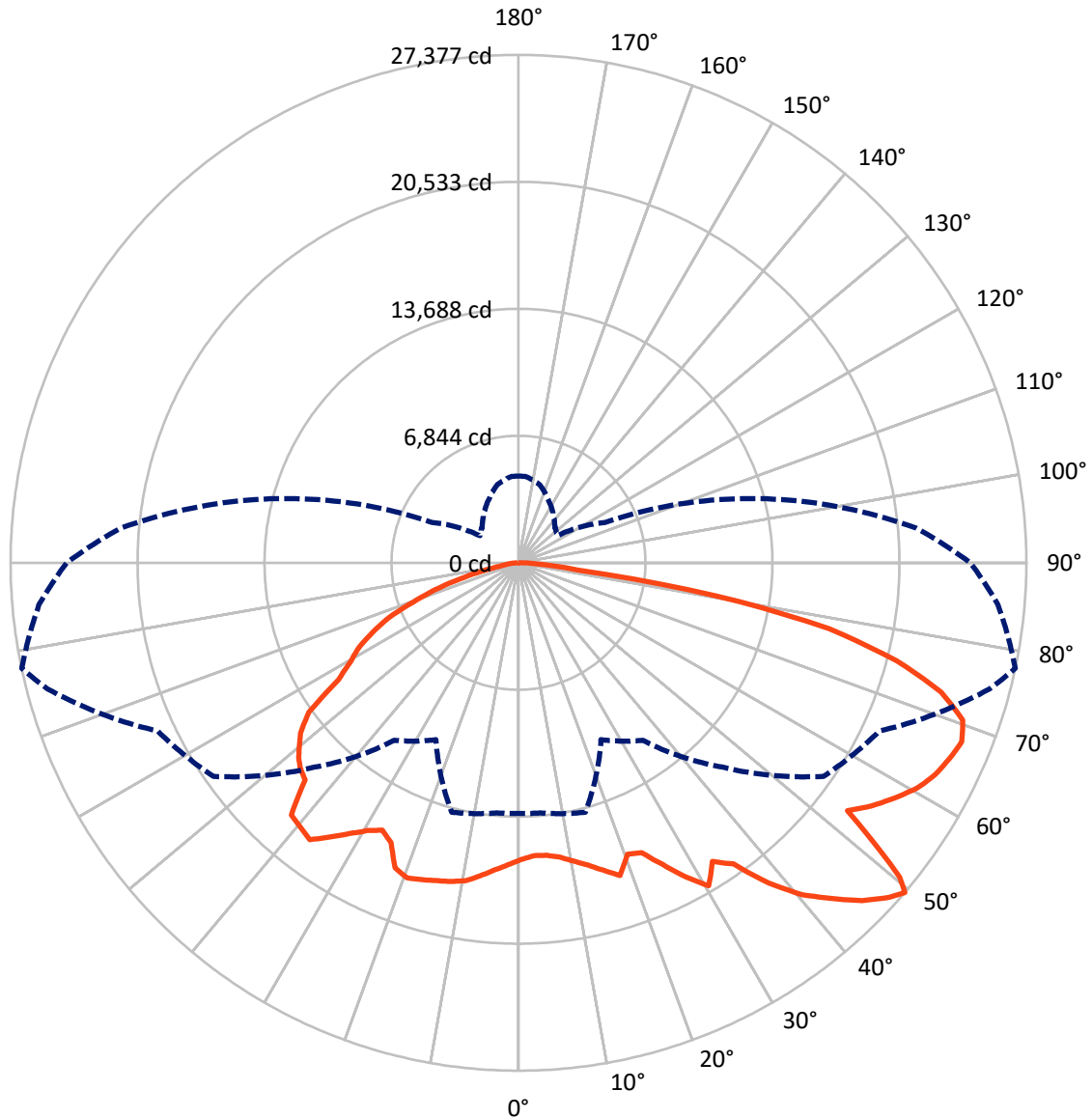
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 20 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 78-Deg Lateral      - - - Horizontal Cone Through 49-Deg Vertical

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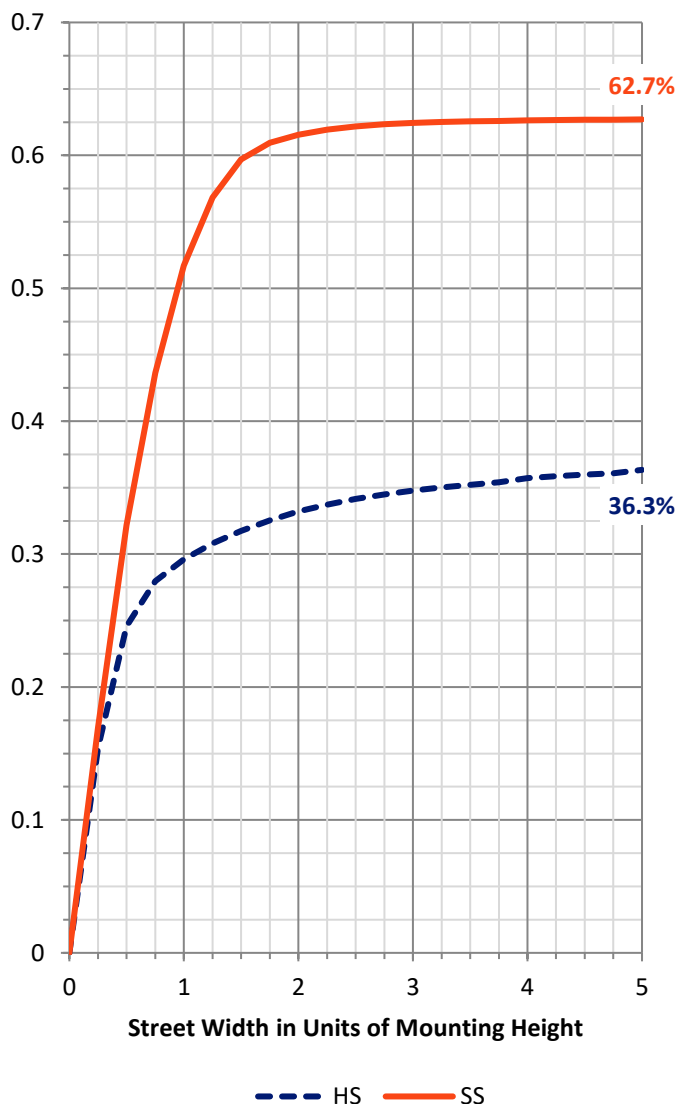
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	20576.8	0.0	20576.8
	% Fixture	37.4	0.0	37.4
<b>Street Side</b>	Lumens	34438.2	0.0	34438.2
	% Fixture	62.6	0.0	62.6
<b>Total</b>	Lumens	55015.0	0.0	55015.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1601.3	2.9
10°-20°	4915.5	8.9
20°-30°	7123.2	12.9
30°-40°	8752.8	15.9
40°-50°	9878.9	18.0
50°-60°	9387.5	17.1
60°-70°	7011.1	12.7
70°-80°	5206.9	9.5
80°-90°	1137.8	2.1
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°	55015.0	100.0
0°-180°	55015.0	100.0

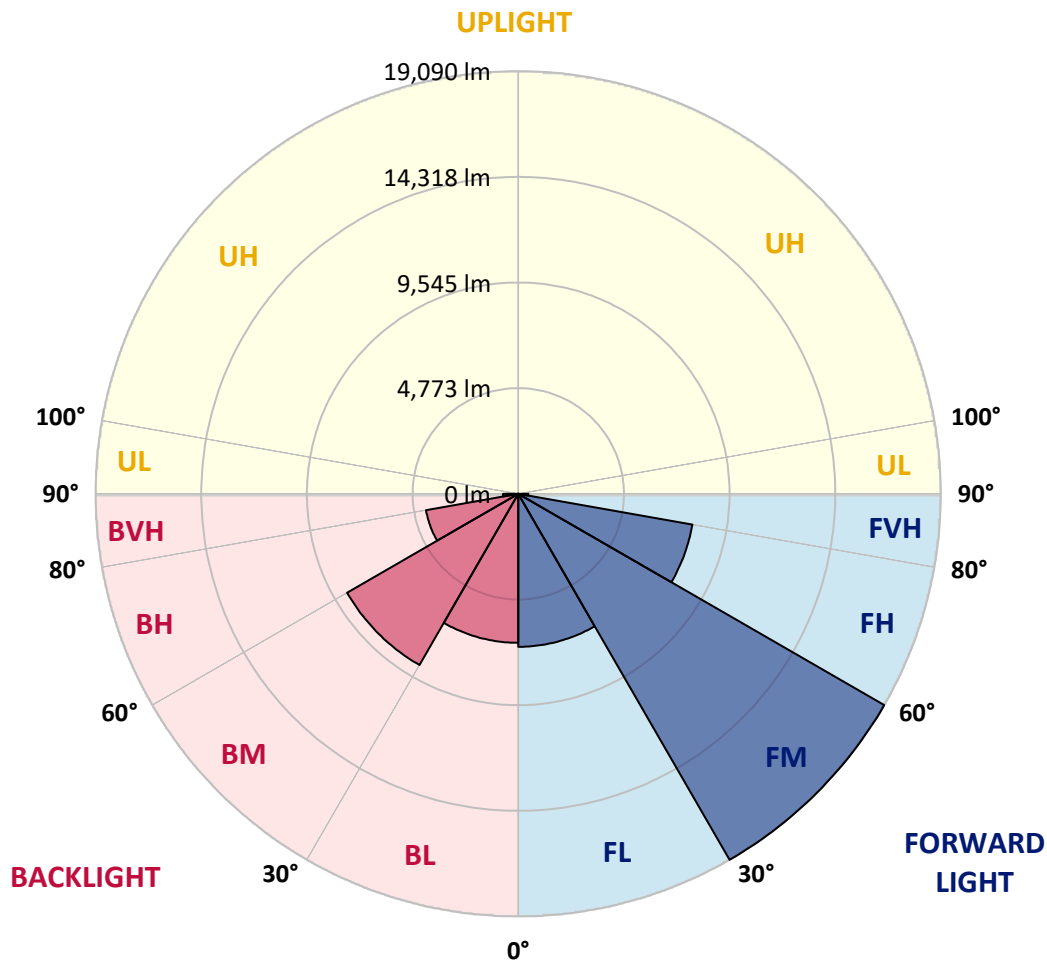


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	6910.2	12.6			
FM (30°-60°)	19090.4	34.7			
FH (60°-80°)	7987.8	14.5			G4/12000
FVH (80°-90°)	449.8	0.8			G3/500
BL (0°-30°)	6729.8	12.2	B5		
BM (30°-60°)	8928.8	16.2	B5		
BH (60°-80°)	4230.2	7.7	B4/5000		G4/5000
BVH (80°-90°)	688.0	1.3			G4/750
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G4**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	78°	85°
0°	15998.1	15998.1	15998.1	15998.1	15998.1	15998.1	15998.1	15998.1	15998.1	15998.1	15998.1
2.5°	15652.4	15566.8	15589.8	15721.5	15468.0	15652.4	15576.6	15754.4	15813.7	15807.1	16063.9
5°	15780.8	15668.8	15701.7	15790.6	15514.1	15655.7	15596.4	15787.4	15836.7	15840.0	16189.0
7.5°	16251.6	16123.2	16090.3	16096.8	15836.7	15942.1	15790.6	15938.8	16027.7	16017.8	16406.3
10°	16936.4	16794.8	16722.4	16699.4	16383.3	16337.2	16152.8	16205.5	16337.2	16353.7	16748.8
12.5°	17641.0	17529.1	17423.7	17371.0	16936.4	16834.4	16564.4	16610.5	16709.2	16729.0	17140.6
15°	18263.3	18157.9	18141.5	18082.2	17641.0	17443.5	17117.5	17068.1	17143.8	17206.4	17565.3
17.5°	17654.2	17519.2	17433.6	17453.3	17229.5	16729.0	16528.2	16867.3	17499.4	17720.0	18059.2
20°	15935.5	16100.1	16031.0	15764.3	15524.0	16333.9	16162.7	16090.3	16482.1	16765.2	17585.0
22.5°	13999.5	13999.5	14658.0	15119.0	15211.2	15665.5	16600.6	16926.5	16969.3	16969.3	16732.3
25°	12468.6	12903.2	14019.3	15770.9	15780.8	15688.6	15948.7	17736.5	18032.8	17999.9	17601.5
27.5°	13061.2	12988.8	13739.4	14957.7	16679.6	16574.3	16067.2	16873.9	19316.9	19165.4	18655.1
30°	13584.7	13512.3	13647.3	15158.5	16936.4	17535.7	17101.0	16860.7	19386.0	20209.1	19902.9
32.5°	14075.3	13993.0	14147.7	14378.2	16116.6	18490.5	18184.3	18026.2	18398.3	19198.3	21315.4
35°	14470.4	14483.5	14661.3	15000.5	15797.2	18167.8	19270.8	19330.0	19981.9	19932.6	21002.6
37.5°	14763.4	14789.7	14944.5	15346.2	15642.5	15007.0	20304.6	20989.4	21993.6	21894.9	21108.0
40°	14779.9	14839.1	15148.6	15642.5	15991.5	13364.1	20113.6	22820.1	23814.4	23524.6	22546.8
42.5°	14473.7	14503.3	15020.2	15856.5	12136.0	13900.8	18651.8	24644.1	25088.6	24733.0	23646.5
45°	14200.4	14193.8	14746.9	15497.6	11467.6	14529.6	18612.3	24114.0	26260.7	25984.1	24598.0
47.5°	13815.2	13811.9	14351.8	11661.9	11612.5	15207.9	19593.4	20910.4	27231.9	26935.6	25463.9
49°	13505.7	13538.6	13920.5	10519.4	11678.4	15586.5	20070.8	21457.0	26280.4	27376.8	25944.6
50°	13337.8	13370.7	12438.9	10404.2	11698.1	15803.8	20321.1	21858.7	23653.0	26629.4	26254.1
52.5°	12573.9	12284.2	9643.6	10163.8	11704.7	16060.6	17473.1	22711.4	22543.5	22197.8	24858.1
55°	7576.0	8573.6	8731.6	9890.6	11599.3	11665.2	17068.1	23702.4	23630.0	23126.2	21404.3
57.5°	4593.0	4546.9	6743.0	9130.0	7766.9	9781.9	17736.5	25012.8	24584.8	23913.1	21769.8
60°	1619.9	1432.2	1445.4	1557.3	2890.8	7319.1	14147.7	18836.2	24782.4	24677.0	22102.3
62.5°	128.4	121.8	121.8	128.4	184.4	2749.2	11217.4	18895.4	25467.2	25193.9	22178.0
65°	16.5	16.5	16.5	36.2	95.5	2485.8	11233.9	19201.6	25977.5	25510.0	21977.2
67.5°	0.0	0.0	9.9	26.3	75.7	2199.4	10904.6	19382.7	26435.2	25773.4	21792.8
70°	0.0	0.0	6.6	23.0	65.8	1820.7	10503.0	19540.8	26221.2	25401.3	20864.3
72.5°	0.0	0.0	6.6	19.8	56.0	1201.7	9311.1	18371.9	24696.8	23807.8	18958.0
75°	0.0	0.0	6.6	16.5	52.7	684.8	7628.6	16231.8	21977.2	21035.5	15975.0
77.5°	0.0	0.0	3.3	13.2	46.1	375.3	5271.2	13436.5	18154.6	17120.8	11968.1
80°	0.0	0.0	3.3	13.2	42.8	256.8	2396.9	8728.3	12099.8	10805.9	6558.6
82.5°	0.0	0.0	3.3	13.2	32.9	174.5	968.0	2446.3	3743.5	3200.3	2087.4
85°	0.0	0.0	3.3	9.9	23.0	111.9	477.4	1004.2	1511.2	1452.0	1056.9
87.5°	0.0	0.0	3.3	9.9	16.5	32.9	141.6	329.2	589.4	599.2	451.1
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°	15998.1	15998.1	15998.1	15998.1	15998.1	15998.1	15998.1	15998.1	15998.1	15998.1	15998.1
2.5°	16185.7	16215.4	16314.1	16462.3	16485.4	16686.2	16653.3	17028.6	17064.8	17153.7	17252.5
5°	16356.9	16459.0	16682.9	17022.0	17269.0	17571.9	17542.2	17967.0	18009.8	17986.7	18138.2
7.5°	16607.2	16758.6	17107.6	17565.3	17647.6	18022.9	17973.5	18342.3	18348.9	18299.5	18447.7
10°	16972.6	17150.4	17473.1	17733.2	17930.7	18157.9	18125.0	18454.2	18421.3	18365.4	18520.1
12.5°	17324.9	17423.7	17621.3	17927.5	17963.7	18055.9	17999.9	18306.1	18273.2	18194.1	18339.0
15°	17641.0	17690.4	17693.7	17845.1	17762.8	17832.0	17683.8	17904.4	17828.7	17799.0	17901.1
17.5°	18046.0	17953.8	17818.8	17808.9	17529.1	17433.6	17196.5	17255.8	17097.8	17084.6	17140.6
20°	18098.7	18289.6	17901.1	17499.4	17028.6	16788.3	16340.5	16343.8	16166.0	16096.8	16129.8
22.5°	16656.6	17127.4	17996.6	17229.5	16429.4	15889.4	15313.2	15138.7	14802.9	14661.3	14605.4
25°	17219.6	16607.2	16541.3	16775.1	15652.4	14829.2	13993.0	13479.3	13080.9	12758.3	12781.3
27.5°	18092.1	17295.3	15685.3	15780.8	14674.5	13518.8	12257.8	11533.5	11128.5	10815.7	10779.5
30°	19247.7	18246.8	15869.7	13676.9	13551.8	11872.6	10325.2	9525.1	9113.5	9001.6	8932.4
32.5°	20683.2	19379.4	16284.5	13196.2	11214.1	10091.4	8356.3	7710.9	7516.7	7506.8	7427.8
35°	22388.7	20877.5	16666.4	12557.4	9670.0	8218.0	6677.1	6252.4	6282.0	6285.3	6351.2
37.5°	21298.9	22293.3	17143.8	11951.6	8165.3	6107.5	5370.0	5103.3	5188.9	5327.2	5393.1
40°	21315.4	20294.7	17700.3	10940.8	6344.6	4658.8	4201.2	4141.9	4507.4	4787.2	4856.4
42.5°	22171.4	20163.0	17496.1	9788.5	4645.7	3542.7	3499.9	3819.3	4346.0	4658.8	4714.8
45°	23090.0	20788.6	14532.9	8155.4	3368.2	2996.1	3325.4	3769.9	4342.8	4675.3	4708.2
47.5°	23962.5	21183.7	13930.4	6374.2	2706.4	2824.9	3272.7	3769.9	4365.8	4704.9	4724.7
49°	24351.0	21503.1	13370.7	5156.0	2538.5	2759.1	3243.1	3776.5	4372.4	4662.1	4672.0
50°	24581.5	21684.2	12919.6	4780.7	2456.2	2716.3	3229.9	3786.3	4362.5	4612.7	4622.6
52.5°	24940.4	21977.2	11882.5	3809.4	2301.4	2617.5	3210.2	3825.8	4326.3	4474.5	4467.9
55°	20568.0	20541.7	11016.6	3197.0	2182.9	2528.6	3203.6	3858.8	4342.8	4494.2	4487.6
57.5°	19712.0	16867.3	9281.4	2614.2	2084.1	2452.9	3210.2	3908.2	4639.1	4902.5	4869.6
60°	19774.5	16610.5	7898.6	2268.5	1968.9	2390.3	3229.9	4128.7	5360.1	5626.8	5544.5
62.5°	19557.2	15981.6	7068.9	2038.0	1847.1	2334.4	3243.1	4434.9	5452.3	5475.4	5333.8
65°	19040.3	15191.4	5952.8	1784.5	1718.7	2281.7	3239.8	4546.9	5030.9	4843.2	4797.1
67.5°	18082.2	14351.8	4711.5	1563.9	1580.4	2202.7	3315.5	4352.6	4760.9	4609.4	4540.3
70°	16946.3	12560.7	3322.1	1359.8	1455.3	2113.8	3305.6	4306.5	4619.3	4395.4	4300.0
72.5°	14924.7	10558.9	2235.6	1172.1	1297.2	2011.7	3137.7	4168.3	4527.1	4379.0	4247.3
75°	11862.7	7901.9	1297.2	1010.8	1142.5	1863.5	2973.1	4082.7	4576.5	4293.4	4020.1
77.5°	8109.3	4500.8	968.0	846.2	984.4	1672.6	2696.5	3796.2	4425.1	4181.4	3816.0
80°	3634.9	1626.5	740.8	688.1	826.4	1356.5	2324.5	3358.3	4191.3	4191.3	3934.5
82.5°	1445.4	1024.0	513.6	540.0	675.0	1033.8	1840.5	2897.4	3694.1	3862.1	4128.7
85°	816.5	599.2	329.2	391.8	516.9	800.1	1340.0	2252.0	3009.3	3335.3	3615.1
87.5°	322.7	227.2	131.7	220.6	299.6	411.6	586.1	1103.0	1619.9	1995.2	2205.9
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)