

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: P237543

Luminaire Tested: **CTN-8-3-D-E1-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237543
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-8-3-D-E1-T3-7050-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 5000K LEDS AND TYPE III OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29248 lumens
Efficiency: N/A
Efficacy: 129.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G4

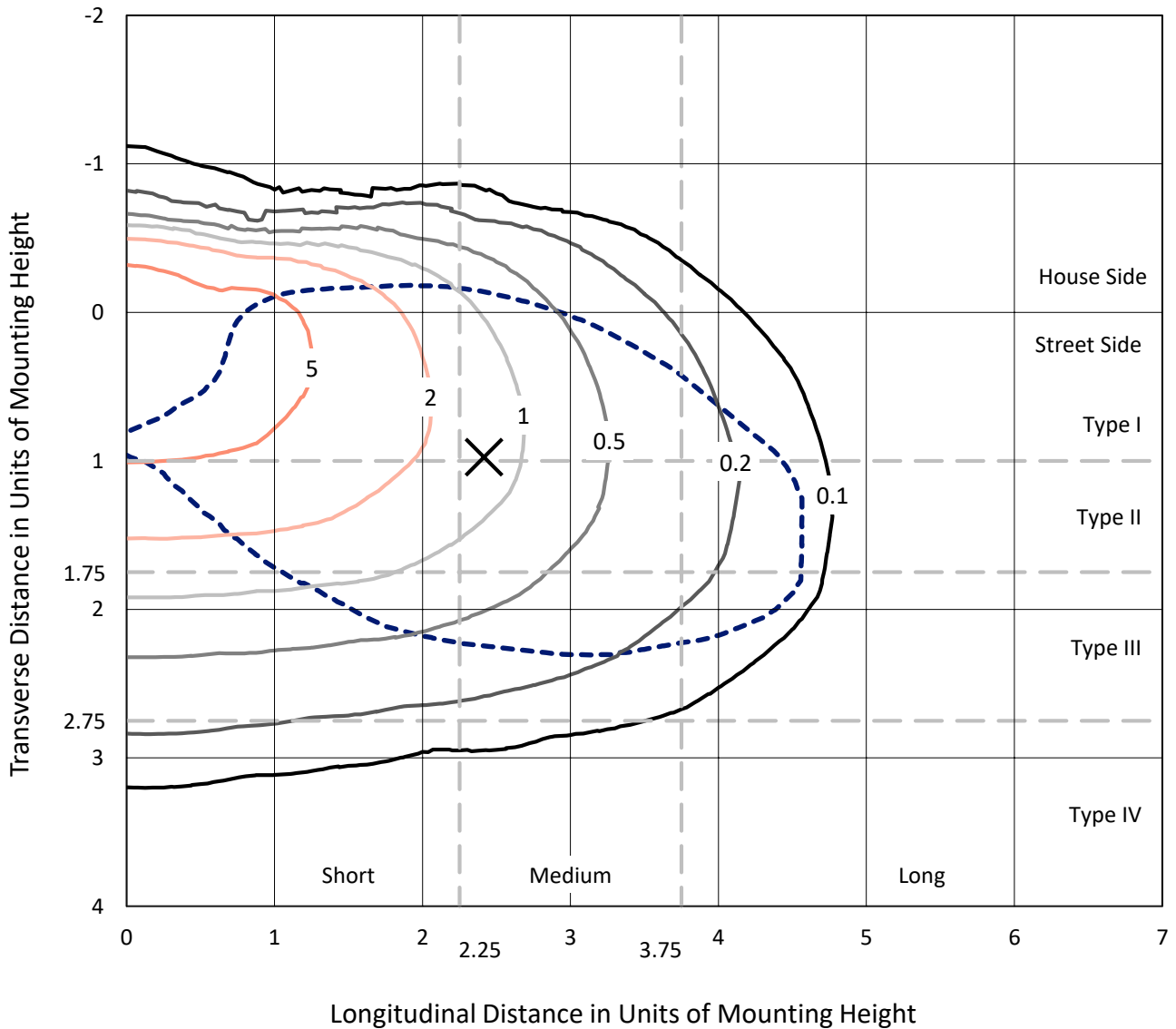
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

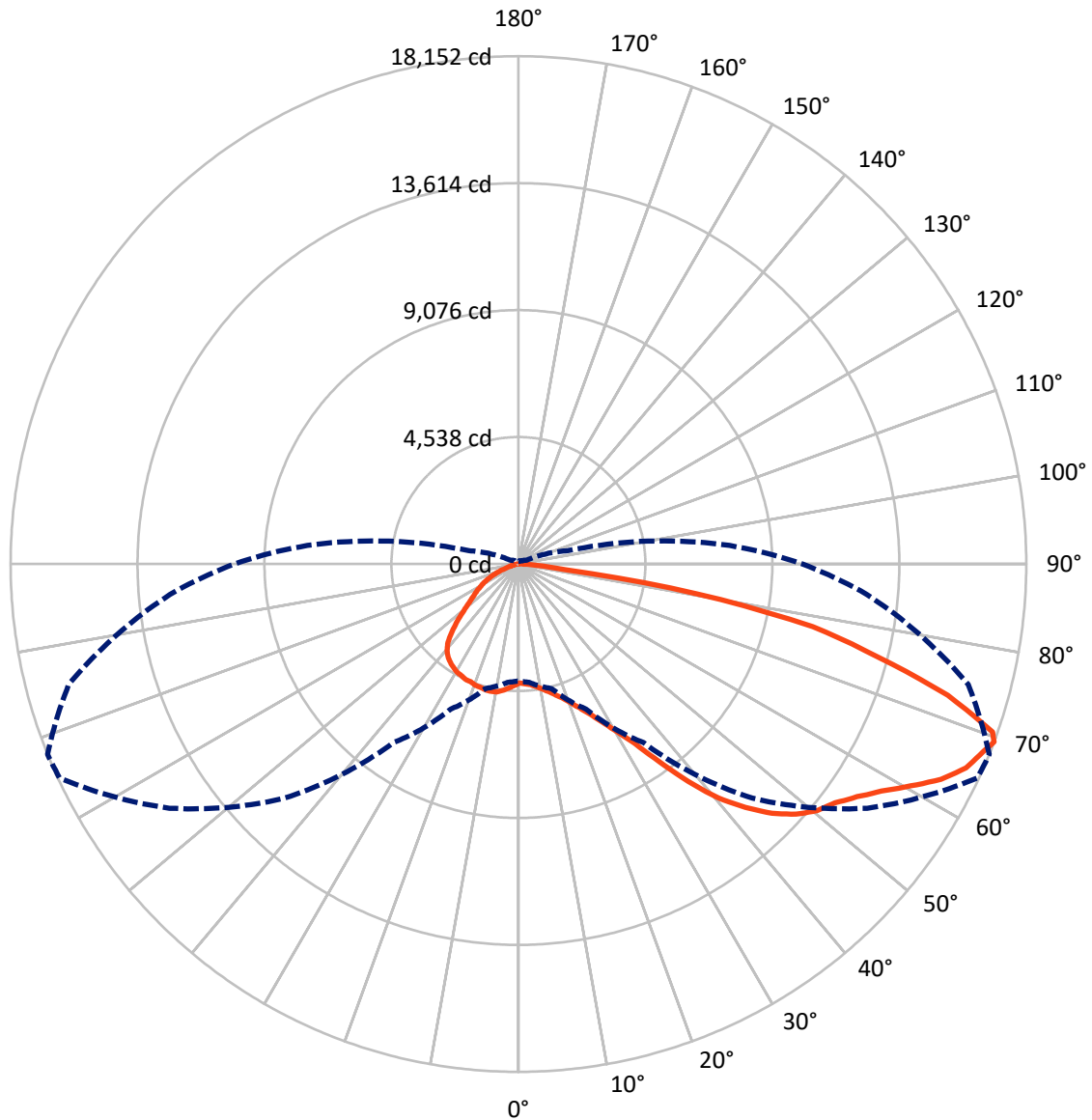
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.3 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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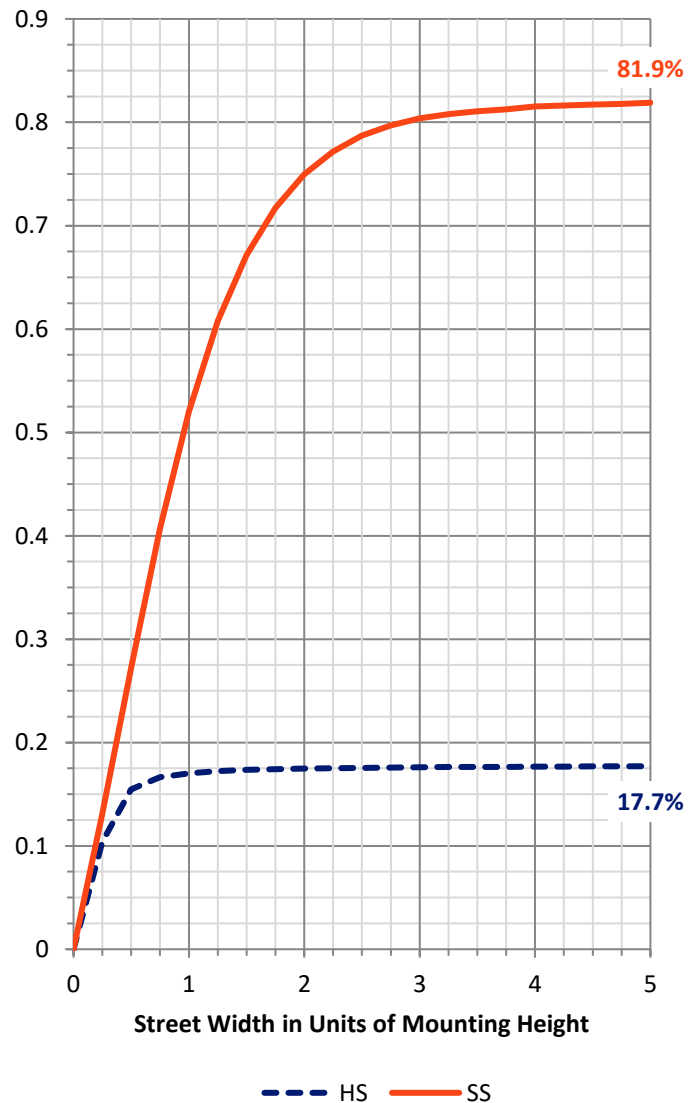
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5249.0	0.0	5249.0
	% Fixture	17.9	0.0	17.9
Street Side	Lumens	23999.0	0.0	23999.0
	% Fixture	82.1	0.0	82.1
Total	Lumens	29248.0	0.0	29248.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	427.2	1.5
10°-20°	1340.7	4.6
20°-30°	2291.8	7.8
30°-40°	3531.4	12.1
40°-50°	5067.7	17.3
50°-60°	6099.2	20.9
60°-70°	6400.5	21.9
70°-80°	3708.0	12.7
80°-90°	381.5	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°	29248.0	100.0
0°-180°	29248.0	100.0

Coefficient of Utilization



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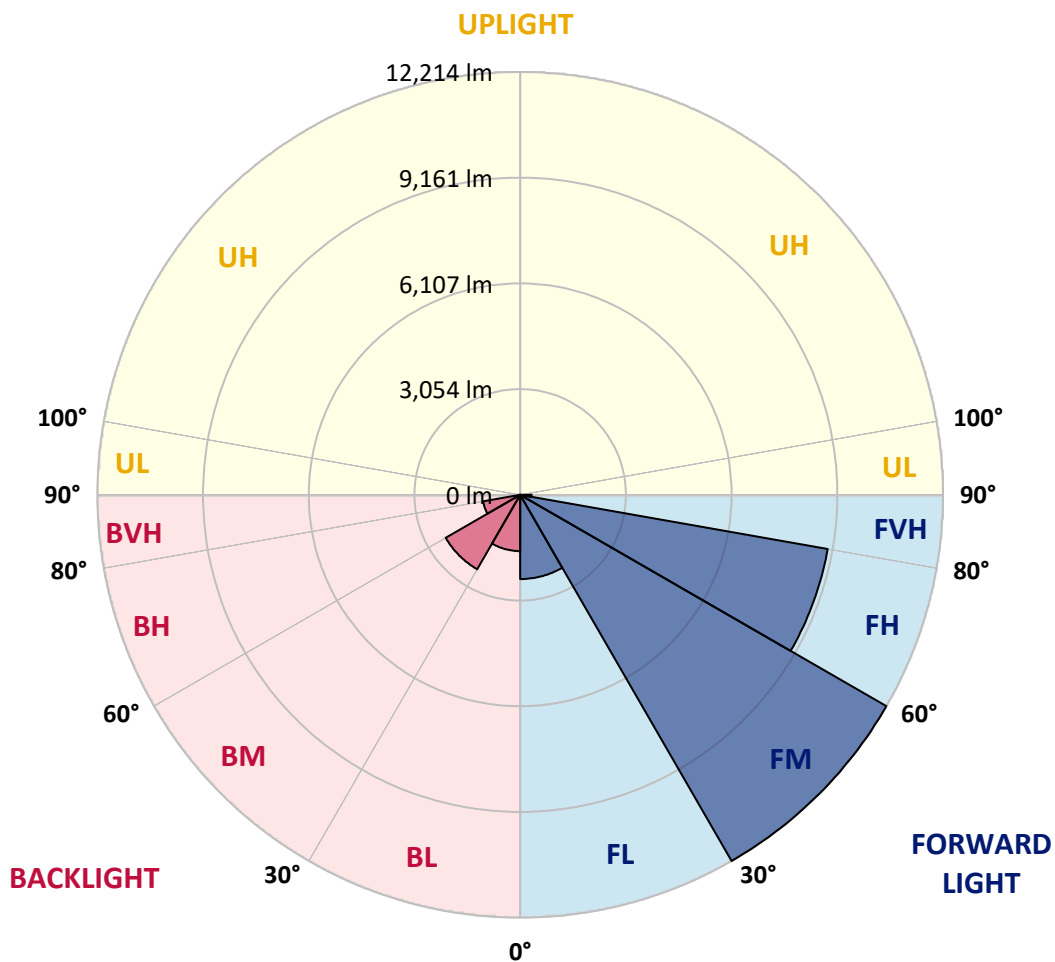
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2433.3	8.3			
FM	(30°-60°)	12214.4	41.8			
FH	(60°-80°)	9019.8	30.8			G4/12000
FVH	(80°-90°)	331.6	1.1			G3/500
BL	(0°-30°)	1626.4	5.6	B3/2500		
BM	(30°-60°)	2483.8	8.5	B2/2500		
BH	(60°-80°)	1088.8	3.7	B3/2500		G3/2500
BVH	(80°-90°)	49.9	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-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	68°	75°	85°
0°	4254.3	4254.3	4254.3	4254.3	4254.3	4254.3	4254.3	4254.3	4254.3	4254.3	4254.3
2.5°	4301.9	4267.4	4271.5	4298.9	4217.8	4252.2	4231.0	4275.6	4282.6	4261.4	4280.6
5°	4387.0	4357.6	4356.6	4384.0	4293.8	4320.1	4286.7	4317.1	4326.2	4303.9	4337.4
7.5°	4552.2	4520.8	4514.7	4542.1	4427.6	4435.7	4390.1	4405.3	4413.4	4383.0	4416.4
10°	4789.4	4754.9	4732.6	4747.8	4619.1	4598.8	4520.8	4518.8	4530.9	4489.4	4543.1
12.5°	5054.9	5014.3	4981.9	4984.9	4838.0	4803.5	4700.2	4663.7	4671.8	4616.1	4680.9
15°	5343.7	5284.9	5254.5	5255.5	5090.3	5032.6	4899.8	4840.0	4835.0	4781.2	4818.7
17.5°	5691.3	5643.7	5605.1	5584.9	5409.6	5295.0	5136.9	5058.9	5030.5	4995.1	4975.8
20°	6099.7	6039.9	5999.4	5992.3	5777.4	5625.4	5415.6	5312.3	5278.8	5249.4	5163.3
22.5°	6554.7	6493.9	6438.2	6429.0	6201.0	6017.6	5735.9	5608.2	5578.8	5545.4	5373.1
25°	6974.3	6967.2	6905.3	6895.2	6675.3	6437.1	6106.8	5943.6	5943.6	5904.1	5639.6
27.5°	7442.4	7452.6	7396.8	7384.7	7177.9	6914.5	6521.3	6365.2	6397.6	6326.7	5975.0
30°	7936.0	7914.7	7899.5	7912.7	7721.1	7442.4	7033.0	6901.3	6952.0	6870.9	6425.0
32.5°	8377.8	8361.6	8371.7	8422.4	8284.6	8027.2	7675.5	7593.4	7642.1	7692.8	7231.7
35°	8727.4	8693.0	8820.7	8932.1	8892.6	8648.4	8365.7	8538.9	8672.7	8903.8	8420.4
37.5°	9035.5	9010.2	9165.2	9393.2	9442.9	9307.1	9220.0	9703.4	9856.4	10167.5	9463.2
40°	9189.6	9184.5	9375.0	9671.9	9873.6	9961.8	10114.8	10773.5	10996.5	11081.6	10256.7
42.5°	9139.9	9156.1	9492.6	9950.6	10276.9	10654.9	10963.0	11687.6	11892.3	11822.4	10951.9
45°	9001.1	9009.2	9350.7	10065.1	10626.6	11367.4	11778.8	12534.8	12716.2	12469.9	11505.2
47.5°	8808.5	8811.6	9172.3	9986.1	10912.3	12011.9	12482.1	13211.8	13358.7	13011.1	11903.5
50°	8548.1	8553.1	8983.8	9886.8	11158.6	12539.9	13032.4	13736.7	13850.2	13395.2	12248.0
52.5°	8218.7	8263.3	8734.5	9727.7	11312.6	12914.8	13448.9	14121.8	14177.5	13854.3	12553.0
55°	7838.7	7885.3	8417.3	9511.8	11372.4	13127.6	13740.8	14596.1	14685.2	14367.0	12801.3
57.5°	7388.7	7452.6	8013.0	9161.2	11232.6	13216.8	14037.7	15181.8	15302.4	14903.1	13056.7
60°	6866.8	6945.9	7535.7	8723.4	10909.3	13311.1	14593.0	15967.2	16107.1	15479.8	13279.7
62.5°	6321.6	6372.3	6905.3	8126.5	10391.5	13384.0	15190.9	16935.0	16947.2	15985.4	13403.3
65°	5592.0	5645.7	6123.0	7372.5	9614.2	13152.0	15492.9	17614.0	17577.5	16381.7	13361.7
67.5°	4756.9	4807.6	5197.8	6435.1	8547.1	12501.4	15389.6	17884.6	17908.9	16669.5	12963.5
69°	4177.3	4244.1	4612.0	5722.7	7793.1	11835.6	15216.3	18095.4	18152.1	16643.1	12502.4
70°	3681.7	3767.8	4117.5	5093.4	7154.6	11230.6	14881.8	17975.8	17979.8	16376.6	12077.8
72.5°	2404.8	2457.5	2518.3	3304.7	5147.1	8899.7	13169.2	15941.9	16047.3	14613.3	10559.7
75°	1189.7	1236.4	1463.4	1748.1	2647.0	5961.9	10441.1	13060.8	13260.4	12410.2	8651.4
77.5°	656.7	665.8	745.9	1145.1	1372.2	2695.7	7136.4	10411.7	10761.3	10113.8	6213.2
80°	409.4	407.4	425.6	533.1	769.2	1277.9	3013.9	5843.3	6471.6	5280.9	2455.5
82.5°	319.2	313.1	314.2	344.6	325.3	602.0	1254.6	1701.5	1716.7	1524.2	955.6
85°	163.2	184.4	218.9	229.0	192.5	327.3	577.6	671.9	688.1	603.0	497.6
87.5°	54.7	55.7	58.8	57.8	51.7	112.5	213.8	249.3	221.9	125.7	170.3
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°	4254.3	4254.3	4254.3	4254.3	4254.3	4254.3	4254.3	4254.3	4254.3	4254.3	4254.3
2.5°	4310.0	4300.9	4319.1	4360.7	4326.2	4357.6	4326.2	4431.6	4419.5	4412.4	4432.6
5°	4369.8	4368.8	4398.2	4465.1	4462.0	4517.8	4487.4	4591.7	4576.5	4574.5	4592.8
7.5°	4450.9	4470.1	4501.5	4570.5	4571.5	4617.1	4582.6	4664.7	4631.3	4623.2	4648.5
10°	4574.5	4579.6	4603.9	4651.5	4584.6	4604.9	4548.2	4613.0	4566.4	4561.3	4598.8
12.5°	4693.1	4700.2	4663.7	4648.5	4562.3	4536.0	4436.7	4471.1	4417.4	4412.4	4430.6
15°	4819.8	4772.1	4685.0	4635.3	4486.3	4391.1	4279.6	4211.7	4119.5	4076.9	4093.1
17.5°	4951.5	4859.3	4696.1	4575.5	4375.9	4237.0	4015.1	3899.6	3762.8	3692.8	3679.7
20°	5095.4	4965.7	4723.5	4545.1	4264.4	3990.8	3720.2	3455.7	3299.6	3227.7	3208.4
22.5°	5257.5	5099.5	4762.0	4443.8	4090.1	3757.7	3300.7	2967.2	2740.2	2670.3	2651.1
25°	5460.2	5249.4	4814.7	4418.4	3922.9	3376.7	2808.1	2430.1	2165.6	2059.2	2036.9
27.5°	5706.5	5456.2	4900.8	4297.8	3629.0	2952.0	2318.7	1883.9	1609.3	1483.6	1456.3
30°	6065.2	5720.7	4958.6	4226.9	3367.5	2511.2	1801.8	1316.4	1056.0	963.7	939.4
32.5°	6772.6	6174.7	5076.1	4063.8	2981.4	1998.4	1240.4	807.7	625.3	572.6	552.3
35°	7823.5	7030.0	5245.4	3870.2	2547.7	1421.8	736.7	468.2	376.0	356.7	350.6
37.5°	8781.2	7874.2	5572.7	3572.3	1978.2	874.6	426.6	300.0	276.7	279.7	279.7
40°	9503.7	8501.5	5954.8	3179.1	1341.7	490.5	292.9	249.3	254.4	255.4	254.4
42.5°	10180.7	9076.1	6139.2	2745.3	777.3	325.3	254.4	232.1	236.1	233.1	231.1
45°	10712.7	9487.5	6193.9	2161.6	425.6	290.8	239.2	215.9	213.8	215.9	217.9
47.5°	11058.3	9738.8	6069.3	1654.9	321.2	270.6	230.0	204.7	199.6	213.8	212.8
50°	11314.7	9911.1	5585.9	1258.6	313.1	253.4	218.9	191.5	193.6	210.8	208.8
52.5°	11501.1	9955.7	5055.9	1009.4	299.0	241.2	208.8	185.5	183.4	196.6	197.6
55°	11649.1	9836.1	4725.5	794.5	286.8	229.0	200.7	179.4	169.2	173.3	172.3
57.5°	11741.3	9699.3	4348.5	662.8	275.6	215.9	189.5	163.2	148.0	149.0	148.0
60°	11721.0	9608.1	3915.8	543.2	261.5	203.7	174.3	145.9	130.7	126.7	126.7
62.5°	11680.5	9420.6	3468.9	473.3	249.3	199.6	156.1	132.8	121.6	117.6	117.6
65°	11404.9	8973.7	2871.0	405.4	237.1	188.5	145.9	127.7	114.5	110.5	110.5
67.5°	10720.8	8234.9	2223.4	352.7	228.0	170.3	142.9	124.6	110.5	105.4	105.4
69°	10143.2	7578.2	1826.2	324.3	218.9	162.1	142.9	125.7	108.4	102.4	102.4
70°	9692.2	7062.4	1511.0	307.1	209.8	157.1	142.9	126.7	107.4	100.3	99.3
72.5°	8317.0	5513.9	839.1	260.4	174.3	142.9	139.8	127.7	102.4	92.2	91.2
75°	6381.4	3876.3	499.6	219.9	146.9	130.7	132.8	122.6	94.2	83.1	83.1
77.5°	3987.7	1780.6	371.9	172.3	119.6	113.5	115.5	108.4	85.1	76.0	76.0
80°	1362.0	803.6	280.7	132.8	86.1	88.2	95.3	91.2	76.0	68.9	67.9
82.5°	745.9	522.9	198.6	92.2	59.8	73.0	73.0	74.0	65.9	60.8	59.8
85°	405.4	272.6	122.6	55.7	42.6	53.7	51.7	55.7	53.7	49.7	48.6
87.5°	140.9	93.2	40.5	20.3	17.2	18.2	21.3	28.4	27.4	28.4	29.4
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)