

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: P237564

Luminaire Tested: **CTN-10-8-D-E1-T2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237564
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-10-8-D-E1-T2-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(10) 70 CRI, 4000K LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 73197 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B4 - U0 - G5

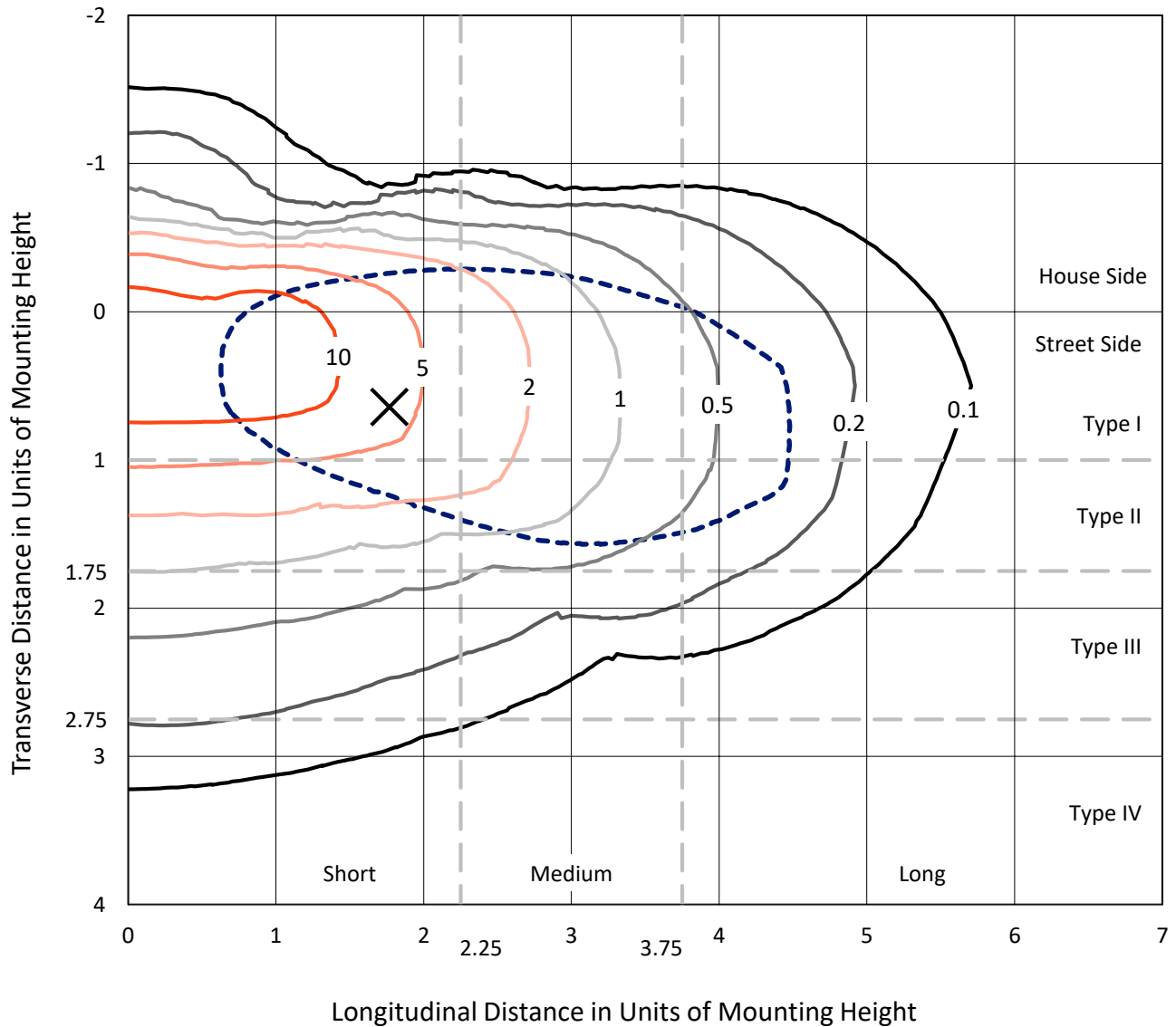
Input Watts (W): 631
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P237564
 CATALOG NUMBER: CTN-10-8-D-E1-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

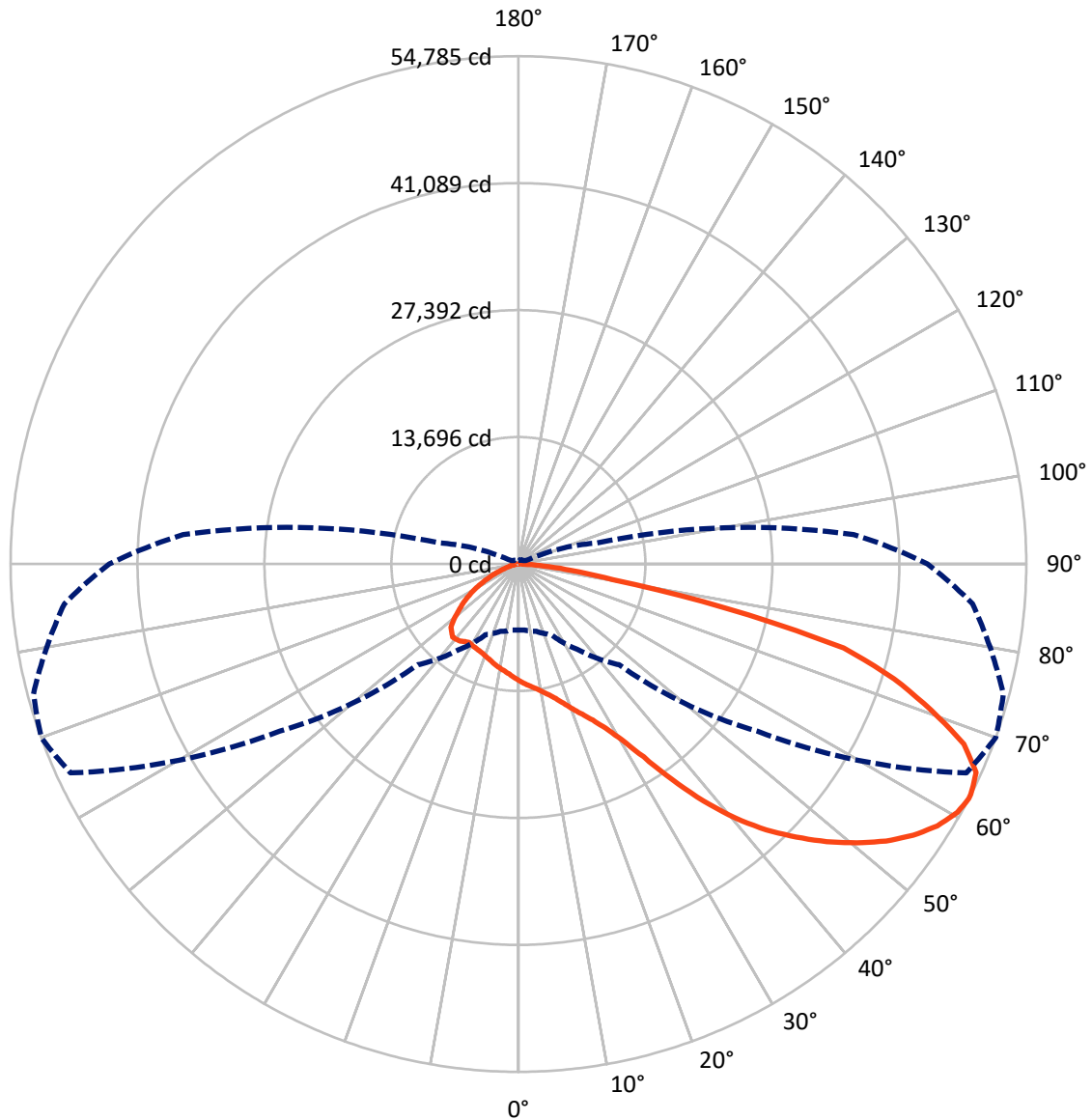


Based on 30 foot mounting height. Maximum calculated value = 18.1 fc
 Type II - Short - Non-Cutoff

REPORT NUMBER: P237564

CATALOG NUMBER: CTN-10-8-D-E1-T2-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P237564

CATALOG NUMBER: CTN-10-8-D-E1-T2-HSS

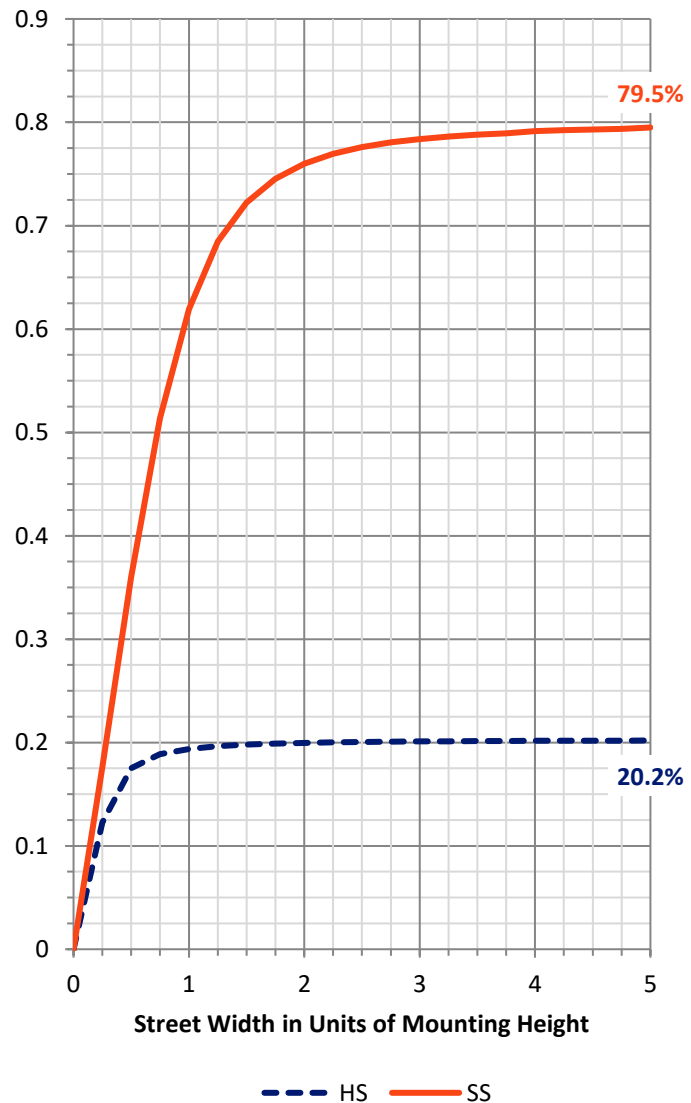
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14973.1	0.0	14973.1
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	58223.9	0.0	58223.9
	% Fixture	79.5	0.0	79.5
Total	Lumens	73197.0	0.0	73197.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1199.5	1.6
10°-20°	3649.5	5.0
20°-30°	6144.2	8.4
30°-40°	9277.6	12.7
40°-50°	13010.1	17.8
50°-60°	15205.7	20.8
60°-70°	14752.4	20.2
70°-80°	8624.1	11.8
80°-90°	1334.0	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°	73197.0	100.0
0°-180°	73197.0	100.0



REPORT NUMBER: P237564

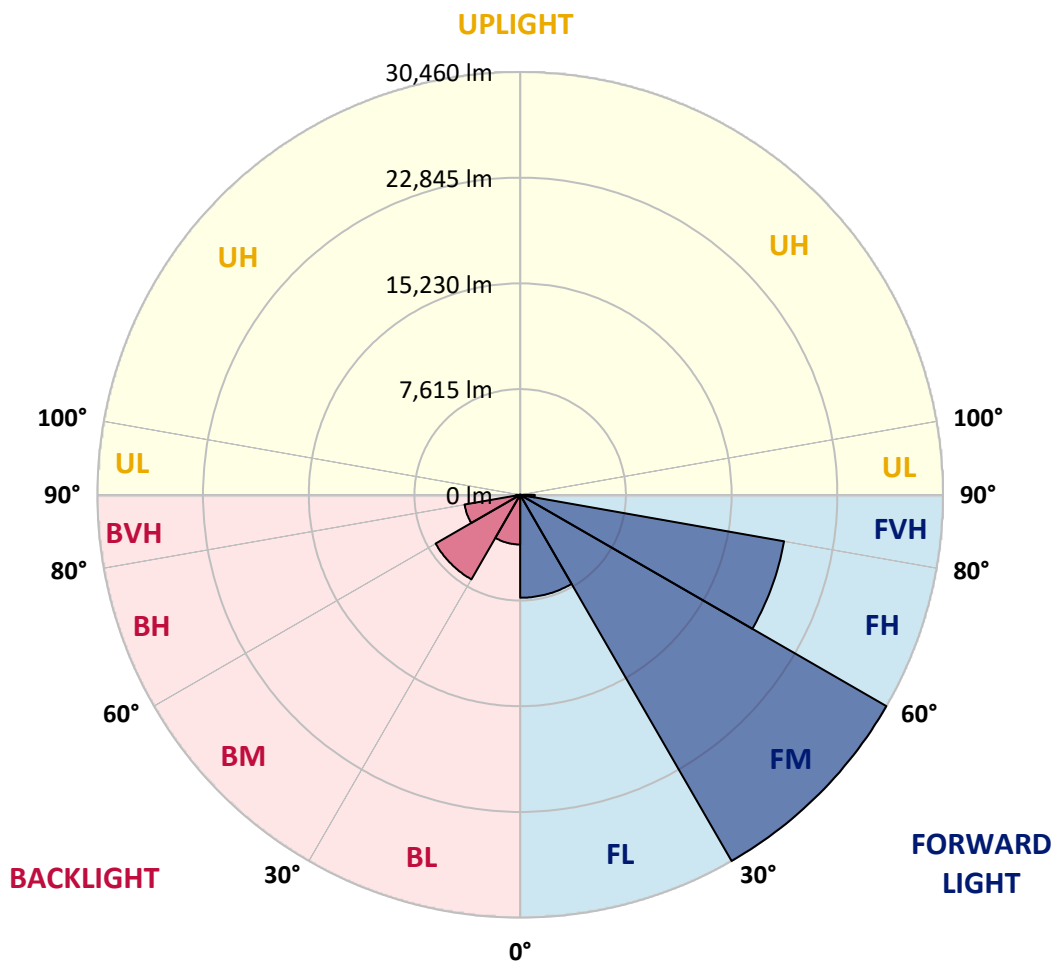
CATALOG NUMBER: CTN-10-8-D-E1-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	7413.3	10.1			
FM (30°-60°)	30460.0	41.6			
FH (60°-80°)	19305.2	26.4			G5
FVH (80°-90°)	1045.4	1.4			G5
BL (0°-30°)	3579.9	4.9	B4/5000		
BM (30°-60°)	7033.3	9.6	B4/8500		
BH (60°-80°)	4071.2	5.6	B4/5000		G4/5000
BVH (80°-90°)	288.6	0.4			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Short





REPORT NUMBER: P237564

CATALOG NUMBER: CTN-10-8-D-E1-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	12592.7	12592.7	12592.7	12592.7	12592.7	12592.7	12592.7	12592.7	12592.7	12592.7	12592.7
2.5°	13665.8	13575.3	13536.5	13593.4	13213.3	13221.0	13037.4	13009.0	12921.1	12797.0	12659.9
5°	14446.7	14340.7	14286.4	14320.0	13919.2	13849.4	13549.4	13402.0	13228.8	13073.6	12776.3
7.5°	15196.6	15088.0	15046.6	15028.5	14544.9	14438.9	14056.2	13795.1	13559.8	13360.7	12957.3
10°	15951.6	15840.4	15755.1	15778.4	15271.5	15082.8	14640.6	14281.2	13978.7	13720.1	13164.1
12.5°	16701.5	16567.0	16473.9	16473.9	15974.9	15791.3	15294.8	14834.6	14449.3	14123.5	13425.3
15°	17469.4	17293.6	17272.9	17272.9	16742.8	16520.5	16031.8	15522.4	15049.2	14630.3	13740.8
17.5°	18263.3	18040.9	18035.7	18069.3	17583.2	17332.4	16872.1	16396.4	15793.9	15263.8	14126.0
20°	18785.6	18586.5	18540.0	18640.8	18258.1	18095.2	17601.3	17267.8	16688.5	16057.6	14622.5
22.5°	19183.8	19062.3	19106.2	19271.7	19085.6	18945.9	18426.2	18126.2	17603.9	16957.5	15292.2
25°	19584.6	19504.4	19605.3	19897.5	19913.0	19951.8	19517.4	19134.7	18648.6	18071.9	16163.6
27.5°	19460.5	19437.2	19742.3	20344.8	20675.8	20851.6	20608.6	20474.1	20029.4	19421.7	17260.0
30°	19551.0	19494.1	19861.3	20624.1	21361.0	21870.4	21870.4	22175.5	21981.6	21371.4	18933.0
32.5°	19282.1	19176.1	19597.5	20691.3	21958.3	22948.7	23388.3	24469.1	24807.9	24588.1	22250.5
35°	18043.5	18123.6	18948.5	20422.4	22369.5	24003.7	25167.3	27484.1	28526.2	28774.4	26069.7
37.5°	17270.3	17304.0	18144.3	19982.8	22514.3	25040.6	27114.4	30964.6	32441.0	32593.6	29420.9
40°	16205.0	16331.7	17272.9	19393.3	22431.5	25917.2	29211.4	34395.9	36037.8	35911.1	32353.1
42.5°	15364.6	15400.8	16223.1	18457.2	22069.5	26615.3	31326.6	37511.7	39231.3	38877.0	35251.8
45°	14317.4	14384.6	15162.9	17293.6	21425.7	26969.6	33152.1	40433.7	42008.4	41566.2	37762.6
47.5°	13050.4	13345.1	14159.7	16039.5	20334.5	26933.4	34698.4	42962.5	44759.6	44079.6	40110.4
50°	10511.1	10870.6	12499.6	14909.5	18904.5	26426.5	35929.2	45747.4	47285.9	46600.7	42254.0
52.5°	9182.1	9251.9	10081.9	13639.9	17229.0	25294.0	36767.0	48048.7	49651.9	48930.5	44314.9
55°	8582.2	8654.6	9073.5	11584.2	15690.4	23287.4	37074.7	50244.1	51666.2	50838.8	46013.7
57.5°	8057.3	8080.5	8574.4	9797.5	14224.3	20644.8	36425.7	52074.8	53292.7	52167.9	47192.8
60°	7457.4	7550.4	8036.6	8944.2	12572.0	17575.5	34202.0	53246.1	54396.8	53396.1	48415.9
62°	7121.2	7144.5	7524.6	8414.1	11292.0	15356.9	31432.6	53313.4	54784.7	54151.1	49168.4
62.5°	7022.9	7038.5	7397.9	8279.6	11028.3	14917.3	30677.5	53259.1	54761.4	54283.0	49333.9
65°	6459.2	6495.4	6818.7	7643.5	9872.5	13202.9	27140.2	52372.1	54262.3	54060.6	49318.3
67.5°	5774.0	5784.4	6128.3	6870.4	8680.4	11592.0	22796.1	50675.9	51818.8	51557.6	47159.2
70°	4721.6	4910.4	5285.3	5939.5	7180.7	9616.5	17340.2	45393.2	47267.8	47526.4	43290.9
72.5°	3589.0	3576.1	3708.0	4163.1	5231.0	7387.5	11705.8	38034.1	42378.1	43777.0	39021.8
75°	2216.0	2301.3	2854.7	3219.3	3749.4	5210.3	7338.4	26475.7	36237.0	38654.6	34491.6
77.5°	1722.1	1737.6	2024.7	2655.6	3071.9	3692.5	4576.8	14426.0	22716.0	28727.9	26863.5
80°	1311.0	1339.4	1528.2	1665.2	2161.7	2249.6	3053.8	7462.5	10345.7	14490.6	18046.1
82.5°	791.2	835.2	1011.0	1091.2	1192.0	1127.4	1642.0	4026.0	5735.2	7416.0	9189.8
85°	398.2	478.4	672.3	636.1	540.4	499.1	703.3	1947.1	2740.9	3627.8	4217.4
87.5°	100.8	121.5	157.7	188.8	160.3	131.9	191.3	527.5	543.0	519.7	1455.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P237564

CATALOG NUMBER: CTN-10-8-D-E1-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	12592.7	12592.7	12592.7	12592.7	12592.7	12592.7	12592.7	12592.7	12592.7	12592.7	12592.7
2.5°	12613.4	12507.4	12313.4	12202.2	11925.6	11819.5	11620.4	11692.8	11648.9	11604.9	11607.5
5°	12634.1	12442.7	12072.9	11806.6	11405.8	11201.5	10940.4	10899.0	10785.2	10715.4	10723.2
7.5°	12678.0	12403.9	11881.6	11457.5	10893.8	10573.2	10224.1	10164.7	9994.0	9916.4	9926.8
10°	12789.2	12466.0	11757.5	11134.3	10498.2	10053.5	9644.9	9513.0	9350.1	9262.2	9257.0
12.5°	12959.9	12559.1	11581.7	10888.7	10115.5	9538.9	9068.3	8856.3	8623.5	8546.0	8553.7
15°	13231.4	12678.0	11434.3	10549.9	9652.7	9052.8	8471.0	8215.0	7969.3	7878.8	7871.1
17.5°	13562.4	12786.6	11330.8	10151.7	9251.9	8533.0	8021.1	7672.0	7258.3	7198.8	7134.1
20°	13890.7	13003.8	11237.7	9862.1	8776.1	8010.7	7341.0	6984.2	6392.0	6169.6	6089.5
22.5°	14369.1	13347.7	11224.8	9518.2	8297.7	7439.3	6536.8	5960.2	5308.6	4931.1	4848.3
25°	15007.8	13725.3	11258.4	9257.0	7762.5	6712.7	5494.8	4662.1	4041.6	3614.9	3527.0
27.5°	15837.8	14239.8	11359.3	8970.0	7276.4	5841.2	4326.0	3470.1	2945.2	2588.4	2505.6
30°	17060.9	15103.5	11517.0	8703.7	6567.9	4706.1	3180.5	2500.4	2091.9	1872.1	1869.5
32.5°	19915.6	17032.5	11607.5	8372.7	5908.5	3558.0	2288.4	1810.0	1484.2	1401.5	1471.3
35°	23189.2	19765.6	12305.7	8015.9	4876.8	2616.8	1634.2	1287.7	1153.3	1173.9	1212.7
37.5°	26209.3	22392.7	13371.0	7436.7	3904.5	1843.7	1173.9	1024.0	995.5	1070.5	1140.3
40°	28883.0	24663.1	14283.8	6800.6	2761.6	1287.7	941.2	946.4	917.9	951.6	974.8
42.5°	31505.0	26767.9	15248.3	5944.7	1841.1	951.6	850.7	897.3	863.6	868.8	835.2
45°	34111.4	28989.0	15664.6	4887.1	1233.4	824.9	796.4	850.7	848.1	827.4	778.3
47.5°	36361.1	30519.8	16192.1	3687.3	917.9	749.9	757.6	796.4	822.3	786.1	762.8
50°	38295.2	32143.7	15786.1	2441.0	819.7	700.7	729.2	729.2	770.6	708.5	680.1
52.5°	40144.0	33759.8	14744.0	1608.3	752.5	667.1	695.6	677.5	695.6	633.5	625.8
55°	41253.3	34595.0	13484.8	1254.1	711.1	638.7	651.6	646.4	630.9	566.3	579.2
57.5°	42473.8	35556.9	11917.8	1052.4	693.0	605.1	607.7	599.9	553.4	509.4	512.0
60°	43448.7	36275.7	10242.2	928.3	672.3	587.0	550.8	537.8	473.2	447.3	449.9
62°	44131.3	36309.4	8781.3	863.6	646.4	574.0	517.2	488.7	416.3	395.6	393.0
62.5°	44206.3	36182.6	8424.4	848.1	636.1	568.9	514.6	473.2	400.8	385.3	380.1
65°	43927.0	34773.4	6720.4	762.8	592.1	537.8	478.4	411.1	343.9	323.2	315.5
67.5°	41848.1	32249.7	5132.7	693.0	537.8	517.2	442.2	362.0	305.1	279.3	274.1
70°	37793.6	28833.9	3664.0	605.1	483.5	470.6	444.8	331.0	281.8	245.6	240.5
72.5°	33289.2	25198.3	2492.7	537.8	429.2	387.9	328.4	312.9	263.7	217.2	212.0
75°	28329.7	20068.1	1773.8	462.9	369.8	328.4	276.7	289.6	248.2	193.9	188.8
77.5°	21736.0	14759.6	1316.2	380.1	287.0	266.3	232.7	256.0	225.0	175.8	173.2
80°	14842.3	10193.1	936.0	287.0	188.8	188.8	196.5	219.8	199.1	157.7	155.1
82.5°	8344.3	5365.5	553.4	206.9	129.3	129.3	152.6	178.4	165.5	137.0	134.5
85°	3457.2	1941.9	292.2	129.3	85.3	87.9	108.6	131.9	129.3	108.6	106.0
87.5°	1202.4	488.7	85.3	44.0	36.2	38.8	44.0	62.1	62.1	54.3	56.9
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)