

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: P237562

Luminaire Tested: **CTN-10-4-D-E1-T2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237562
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-10-4-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: 39046 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

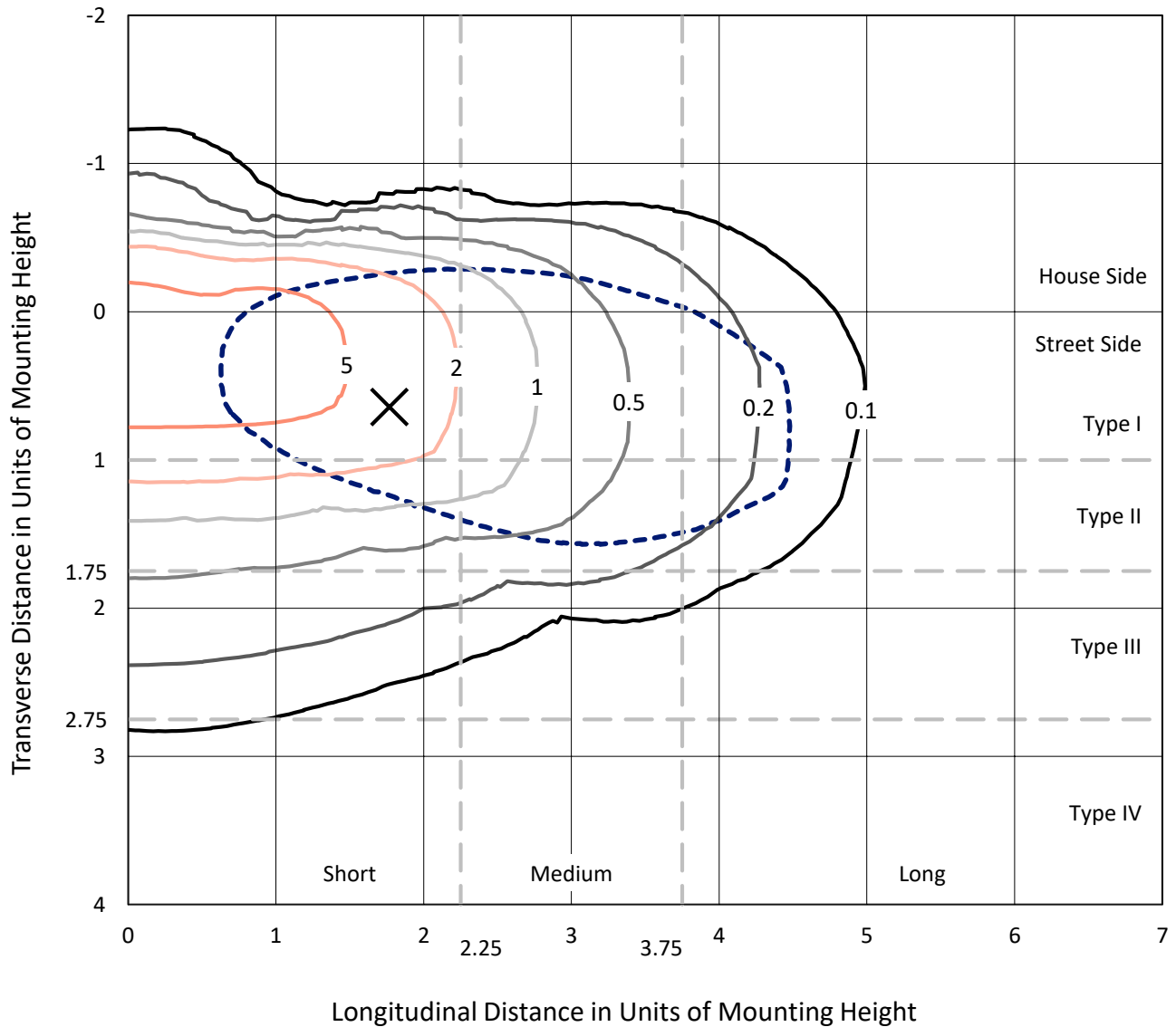
Input Watts (W): 308
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P237562
 CATALOG NUMBER: CTN-10-4-D-E1-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

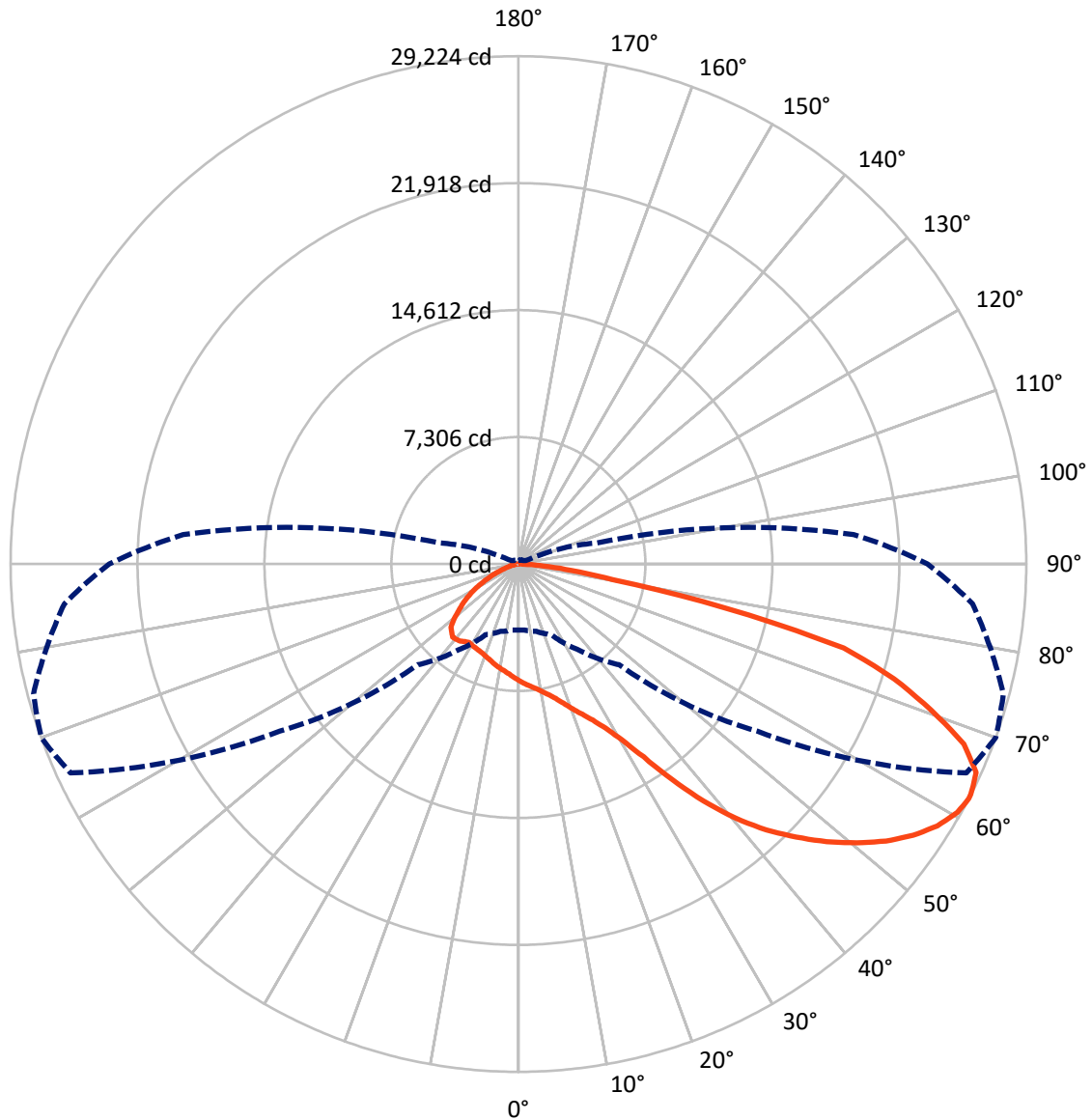
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.6 fc
 Type II - Short - Non-Cutoff

REPORT NUMBER: P237562
CATALOG NUMBER: CTN-10-4-D-E1-T2-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P237562

CATALOG NUMBER: CTN-10-4-D-E1-T2-HSS

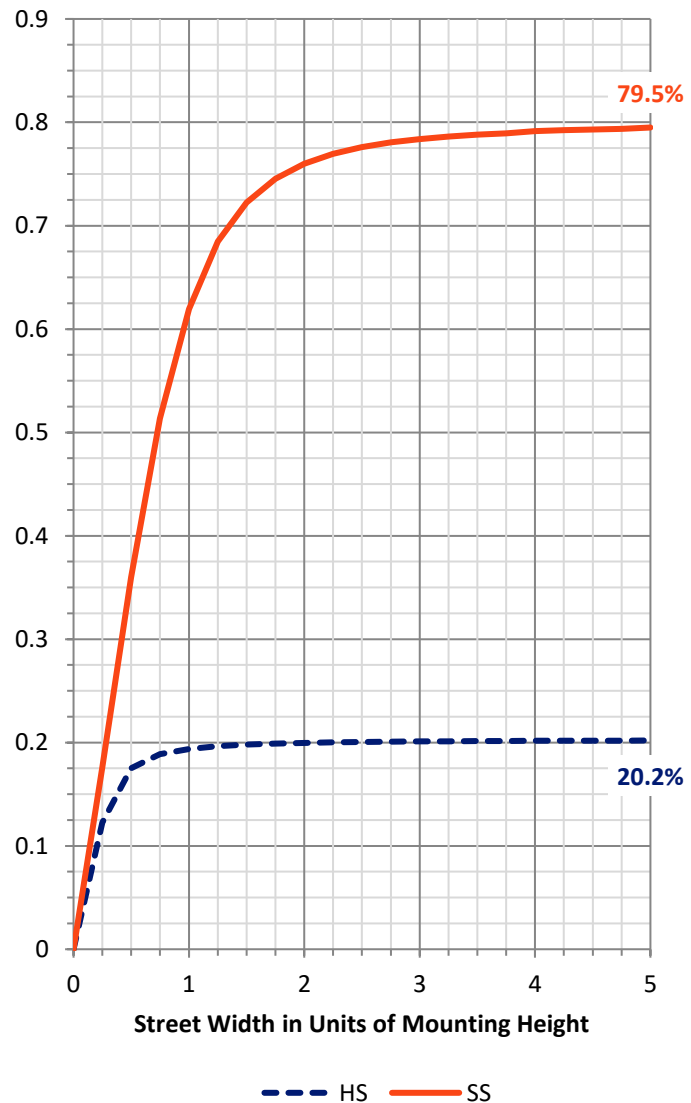
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7987.2	0.0	7987.2
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	31058.8	0.0	31058.8
	% Fixture	79.5	0.0	79.5
Total	Lumens	39046.0	0.0	39046.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	639.9	1.6
10°-20°	1946.8	5.0
20°-30°	3277.6	8.4
30°-40°	4949.0	12.7
40°-50°	6940.1	17.8
50°-60°	8111.3	20.8
60°-70°	7869.5	20.2
70°-80°	4600.4	11.8
80°-90°	711.6	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°	39046.0	100.0
0°-180°	39046.0	100.0



REPORT NUMBER: P237562

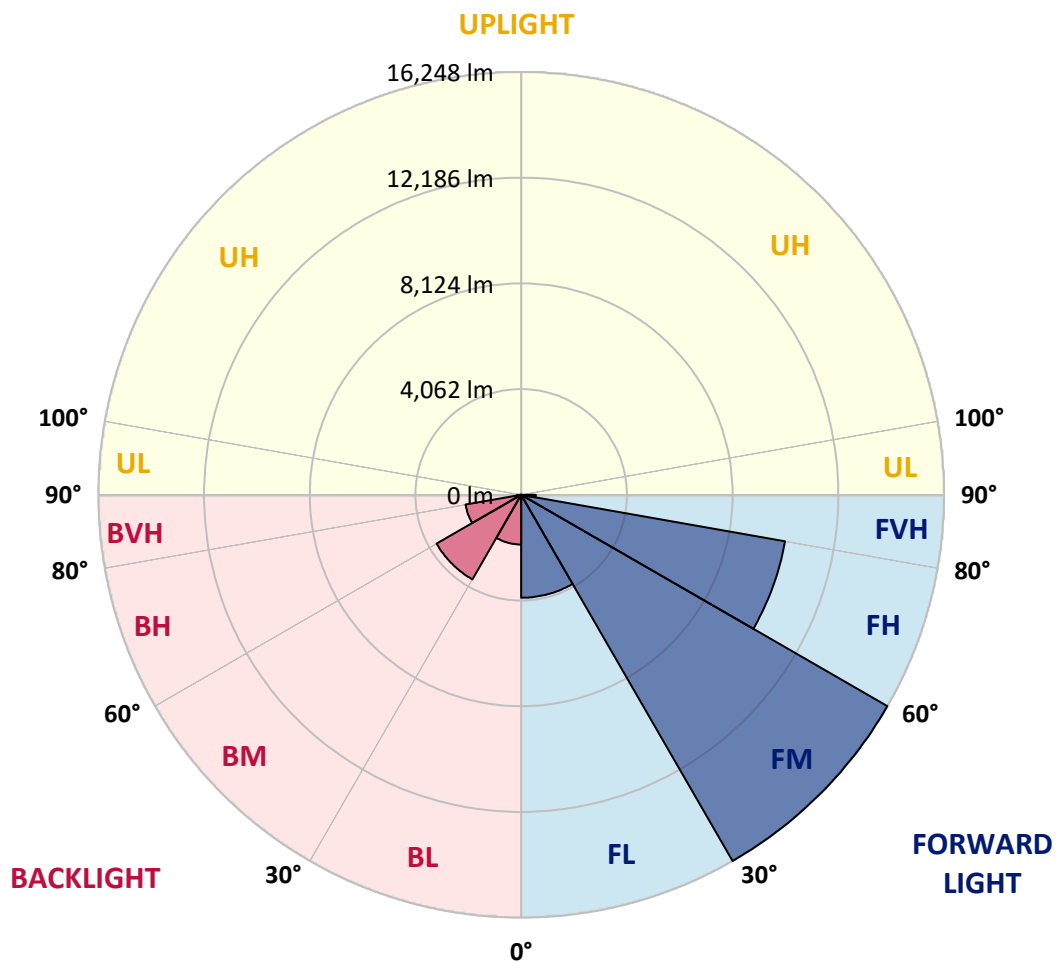
CATALOG NUMBER: CTN-10-4-D-E1-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3954.5	10.1			
FM	(30°-60°)	16248.5	41.6			
FH	(60°-80°)	10298.1	26.4			G4/12000
FVH	(80°-90°)	557.7	1.4			G4/750
BL	(0°-30°)	1909.7	4.9	B3/2500		
BM	(30°-60°)	3751.8	9.6	B3/5000		
BH	(60°-80°)	2171.8	5.6	B3/2500		G3/2500
BVH	(80°-90°)	154.0	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-G4

Type II Short





REPORT NUMBER: P237562

CATALOG NUMBER: CTN-10-4-D-E1-T2-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	6717.4	6717.4	6717.4	6717.4	6717.4	6717.4	6717.4	6717.4	6717.4	6717.4	6717.4
2.5°	7289.8	7241.6	7220.9	7251.2	7048.5	7052.6	6954.7	6939.5	6892.6	6826.4	6753.3
5°	7706.4	7649.8	7620.9	7638.8	7425.0	7387.8	7227.8	7149.1	7056.7	6974.0	6815.3
7.5°	8106.4	8048.5	8026.4	8016.8	7758.8	7702.3	7498.1	7358.8	7233.3	7127.1	6911.9
10°	8509.2	8449.9	8404.3	8416.8	8146.4	8045.7	7809.8	7618.1	7456.7	7318.8	7022.2
12.5°	8909.2	8837.5	8787.8	8787.8	8521.6	8423.7	8158.8	7913.3	7707.8	7534.0	7161.6
15°	9318.9	9225.1	9214.0	9214.0	8931.3	8812.6	8551.9	8280.2	8027.8	7804.3	7329.8
17.5°	9742.3	9623.7	9620.9	9638.9	9379.5	9245.7	9000.2	8746.4	8425.0	8142.3	7535.4
20°	10020.9	9914.7	9889.9	9943.7	9739.6	9652.7	9389.2	9211.3	8902.3	8565.7	7800.2
22.5°	10233.4	10168.5	10192.0	10280.3	10180.9	10106.5	9829.2	9669.2	9390.6	9045.7	8157.4
25°	10447.2	10404.4	10458.2	10614.1	10622.3	10643.0	10411.3	10207.2	9947.8	9640.2	8622.3
27.5°	10380.9	10368.5	10531.3	10852.7	11029.2	11123.0	10993.4	10921.7	10684.4	10360.3	9207.1
30°	10429.2	10398.9	10594.7	11001.7	11394.8	11666.5	11666.5	11829.3	11725.8	11400.3	10099.6
32.5°	10285.8	10229.2	10454.1	11037.5	11713.4	12241.7	12476.2	13052.7	13233.4	13116.2	11869.3
35°	9625.1	9667.8	10107.8	10894.1	11932.7	12804.5	13425.2	14661.1	15216.9	15349.3	13906.6
37.5°	9212.6	9230.6	9678.9	10659.6	12010.0	13357.6	14463.8	16517.7	17305.3	17386.6	15694.2
40°	8644.4	8711.9	9214.0	10345.1	11965.8	13825.2	15582.5	18348.0	19223.9	19156.3	17258.4
42.5°	8196.1	8215.4	8654.0	9845.8	11772.7	14197.6	16710.8	20010.2	20927.4	20738.4	18804.6
45°	7637.4	7673.3	8088.5	9225.1	11429.2	14386.6	17684.6	21568.8	22408.8	22173.0	20143.9
47.5°	6961.6	7118.8	7553.3	8556.1	10847.2	14367.3	18509.4	22917.8	23876.5	23513.7	21396.4
50°	5607.0	5798.8	6667.8	7953.3	10084.4	14096.9	19166.0	24403.4	25224.1	24858.5	22539.9
52.5°	4898.1	4935.3	5378.1	7276.0	9190.6	13492.7	19612.9	25631.0	26486.2	26101.3	23639.2
55°	4578.0	4616.7	4840.1	6179.5	8369.9	12422.4	19777.0	26802.0	27560.7	27119.3	24545.4
57.5°	4298.0	4310.5	4573.9	5226.3	7587.8	11012.7	19430.8	27778.6	28428.3	27828.3	25174.4
60°	3978.0	4027.7	4287.0	4771.2	6706.4	9375.4	18244.6	28403.5	29017.3	28483.5	25826.8
62°	3798.7	3811.1	4013.9	4488.4	6023.6	8191.9	16767.3	28439.3	29224.2	28886.2	26228.2
62.5°	3746.3	3754.6	3946.3	4416.7	5882.9	7957.4	16364.5	28410.4	29211.8	28956.6	26316.5
65°	3445.6	3464.9	3637.3	4077.3	5266.3	7042.9	14477.6	27937.2	28945.5	28838.0	26308.2
67.5°	3080.1	3085.6	3269.0	3664.9	4630.5	6183.6	12160.3	27032.4	27642.1	27502.8	25156.5
70°	2518.7	2619.4	2819.4	3168.4	3830.4	5129.8	9249.9	24214.4	25214.4	25352.4	23093.0
72.5°	1914.5	1907.6	1978.0	2220.7	2790.4	3940.8	6244.3	20288.8	22606.1	23352.3	20815.7
75°	1182.1	1227.6	1522.8	1717.3	2000.0	2779.4	3914.6	14123.1	19330.1	20619.8	18399.1
77.5°	918.6	926.9	1080.0	1416.6	1638.7	1969.7	2441.4	7695.4	12117.5	15324.5	14330.0
80°	699.3	714.5	815.2	888.3	1153.1	1200.0	1629.0	3980.8	5518.8	7729.8	9626.4
82.5°	422.1	445.5	539.3	582.1	635.9	601.4	875.9	2147.6	3059.4	3956.0	4902.2
85°	212.4	255.2	358.6	339.3	288.3	266.2	375.2	1038.6	1462.1	1935.2	2249.7
87.5°	53.8	64.8	84.1	100.7	85.5	70.3	102.1	281.4	289.7	277.2	776.6
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: P237562

CATALOG NUMBER: CTN-10-4-D-E1-T2-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6717.4	6717.4	6717.4	6717.4	6717.4	6717.4	6717.4	6717.4	6717.4	6717.4	6717.4
2.5°	6728.4	6671.9	6568.4	6509.1	6361.5	6305.0	6198.8	6237.4	6213.9	6190.5	6191.9
5°	6739.5	6637.4	6440.2	6298.1	6084.3	5975.3	5836.0	5813.9	5753.2	5716.0	5720.1
7.5°	6762.9	6616.7	6338.1	6111.9	5811.2	5640.1	5453.9	5422.2	5331.2	5289.8	5295.3
10°	6822.2	6649.8	6271.9	5939.5	5600.1	5362.9	5145.0	5074.6	4987.7	4940.8	4938.1
12.5°	6913.3	6699.5	6178.1	5808.4	5396.0	5088.4	4837.4	4724.3	4600.1	4558.7	4562.9
15°	7058.1	6762.9	6099.5	5627.7	5149.1	4829.1	4518.7	4382.2	4251.1	4202.9	4198.7
17.5°	7234.7	6820.9	6044.3	5415.3	4935.3	4551.8	4278.7	4092.5	3871.8	3840.1	3805.6
20°	7409.8	6936.7	5994.6	5260.8	4681.5	4273.2	3916.0	3725.6	3409.7	3291.1	3248.4
22.5°	7665.0	7120.2	5987.7	5077.4	4426.3	3968.4	3487.0	3179.4	2831.8	2630.4	2586.3
25°	8005.7	7321.6	6005.7	4938.1	4140.8	3580.8	2931.1	2487.0	2155.9	1928.3	1881.4
27.5°	8448.5	7596.1	6059.5	4784.9	3881.5	3115.9	2307.6	1851.1	1571.1	1380.7	1336.6
30°	9100.9	8056.8	6143.6	4642.9	3503.5	2510.4	1696.6	1333.8	1115.9	998.6	997.3
32.5°	10623.7	9085.7	6191.9	4466.3	3151.8	1898.0	1220.7	965.5	791.7	747.6	784.8
35°	12370.0	10543.7	6564.3	4276.0	2601.4	1395.9	871.7	686.9	615.2	626.2	646.9
37.5°	13981.0	11945.1	7132.6	3967.0	2082.8	983.5	626.2	546.2	531.0	571.0	608.3
40°	15407.3	13156.2	7619.5	3627.7	1473.1	686.9	502.1	504.8	489.7	507.6	520.0
42.5°	16805.9	14279.0	8134.0	3171.1	982.1	507.6	453.8	478.6	460.7	463.5	445.5
45°	18196.3	15463.8	8356.1	2607.0	657.9	440.0	424.8	453.8	452.4	441.4	415.2
47.5°	19396.3	16280.4	8637.5	1966.9	489.7	400.0	404.1	424.8	438.6	419.3	406.9
50°	20428.1	17146.6	8420.9	1302.1	437.3	373.8	389.0	389.0	411.0	377.9	362.8
52.5°	21414.3	18008.7	7865.0	858.0	401.4	355.9	371.0	361.4	371.0	337.9	333.8
55°	22006.1	18454.3	7193.3	669.0	379.3	340.7	347.6	344.8	336.6	302.1	309.0
57.5°	22657.1	18967.4	6357.4	561.4	369.7	322.8	324.1	320.0	295.2	271.7	273.1
60°	23177.1	19350.8	5463.6	495.2	358.6	313.1	293.8	286.9	252.4	238.6	240.0
62°	23541.3	19368.8	4684.3	460.7	344.8	306.2	275.9	260.7	222.1	211.0	209.7
62.5°	23581.3	19301.2	4493.9	452.4	339.3	303.5	274.5	252.4	213.8	205.5	202.8
65°	23432.3	18549.4	3584.9	406.9	315.9	286.9	255.2	219.3	183.5	172.4	168.3
67.5°	22323.3	17203.2	2738.0	369.7	286.9	275.9	235.9	193.1	162.8	149.0	146.2
70°	20160.5	15381.1	1954.5	322.8	257.9	251.0	237.2	176.6	150.3	131.0	128.3
72.5°	17757.7	13441.7	1329.7	286.9	229.0	206.9	175.2	166.9	140.7	115.9	113.1
75°	15112.1	10705.1	946.2	246.9	197.2	175.2	147.6	154.5	132.4	103.5	100.7
77.5°	11594.8	7873.3	702.1	202.8	153.1	142.1	124.1	136.6	120.0	93.8	92.4
80°	7917.4	5437.4	499.3	153.1	100.7	100.7	104.8	117.2	106.2	84.1	82.8
82.5°	4451.1	2862.1	295.2	110.3	69.0	69.0	81.4	95.2	88.3	73.1	71.7
85°	1844.2	1035.9	155.9	69.0	45.5	46.9	57.9	70.3	69.0	57.9	56.6
87.5°	641.4	260.7	45.5	23.4	19.3	20.7	23.4	33.1	33.1	29.0	30.3
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)