

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: P232716

Luminaire Tested: **CTN-8-6-D-E1-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P232716
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-20)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-8-6-D-E1-T4-7030
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 3000K LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 60199 lumens
Efficiency: N/A
Efficacy: 126.2 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B4 - U0 - G5

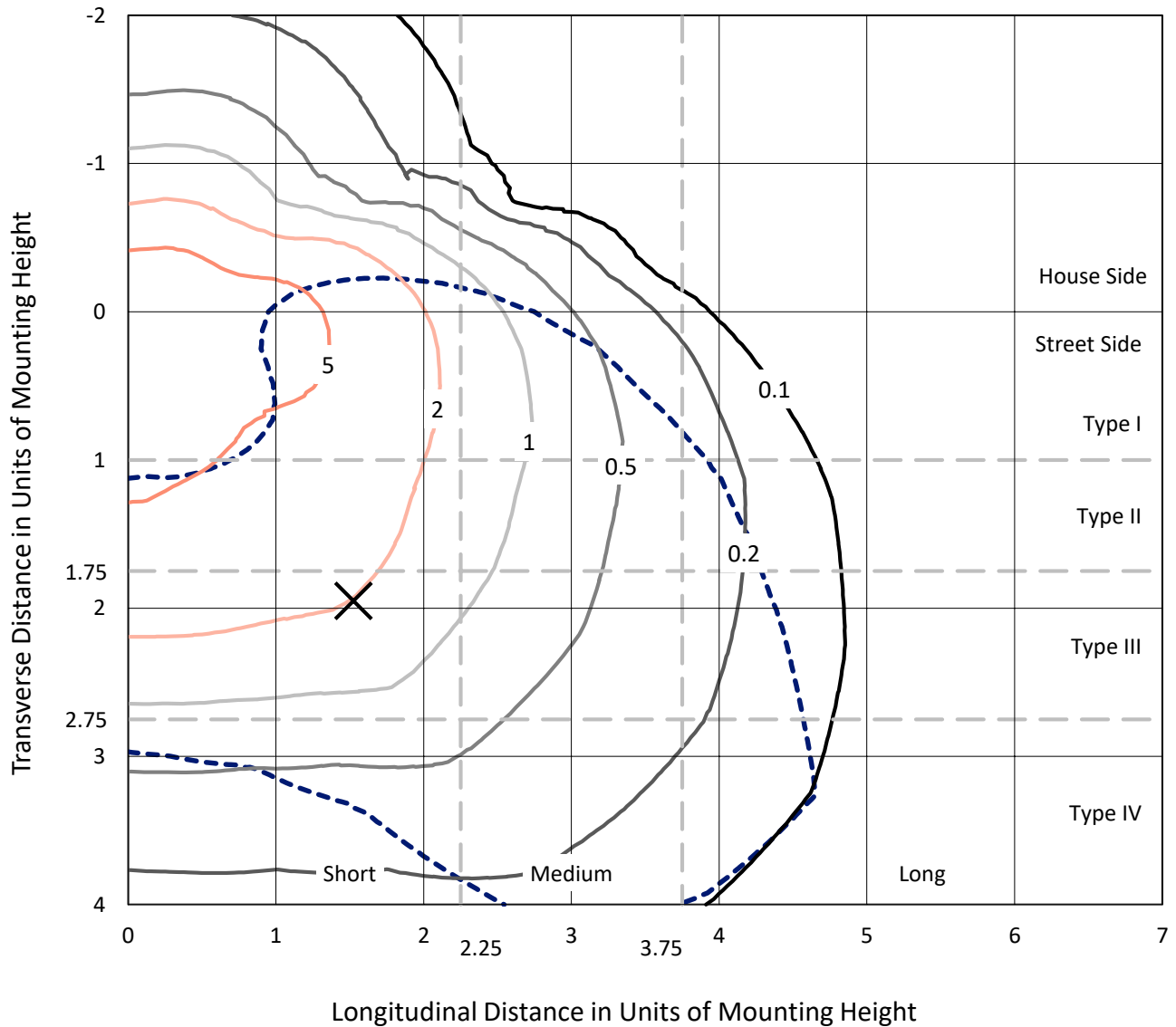
Input Watts (W): 477
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

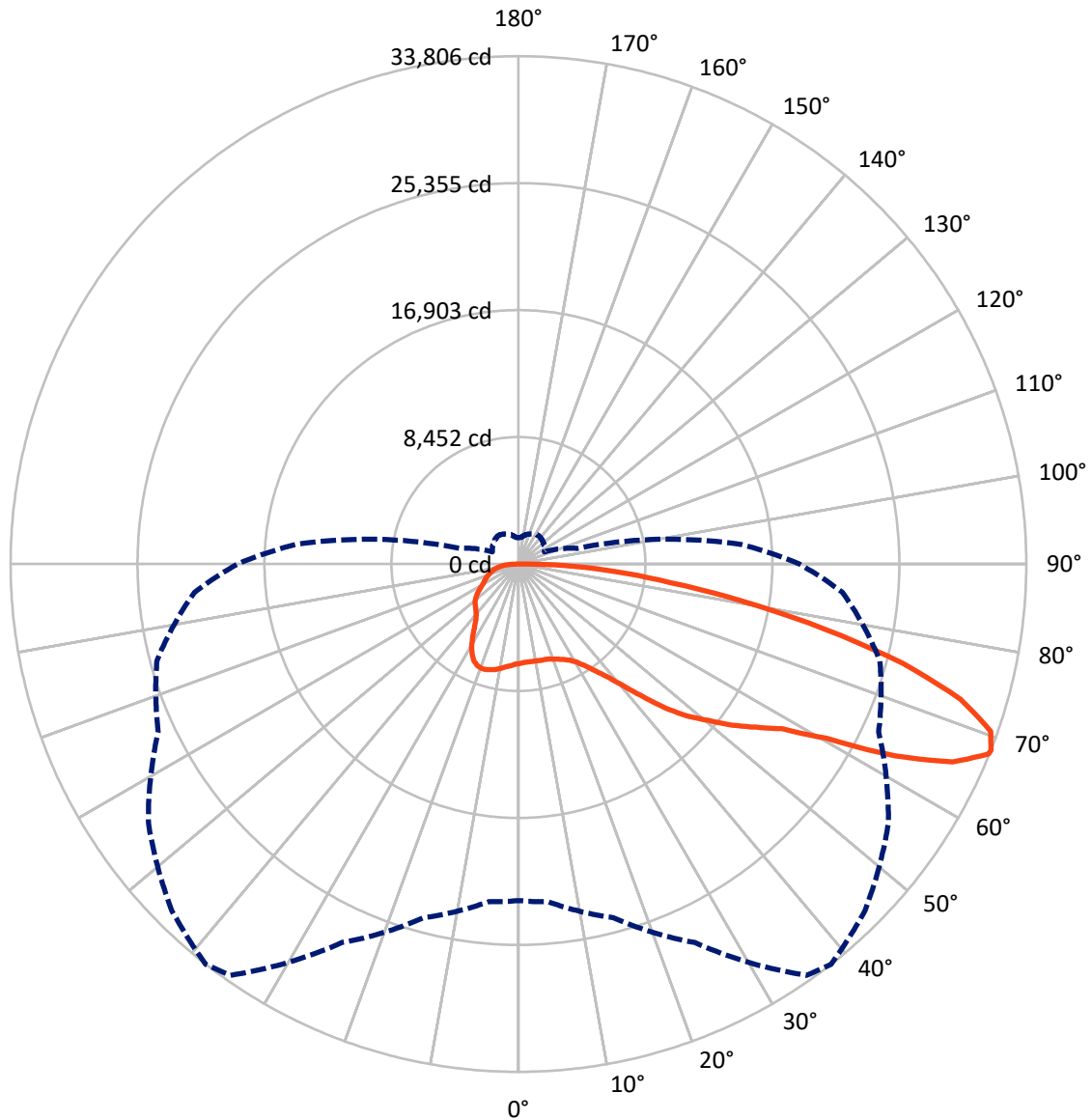
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.6 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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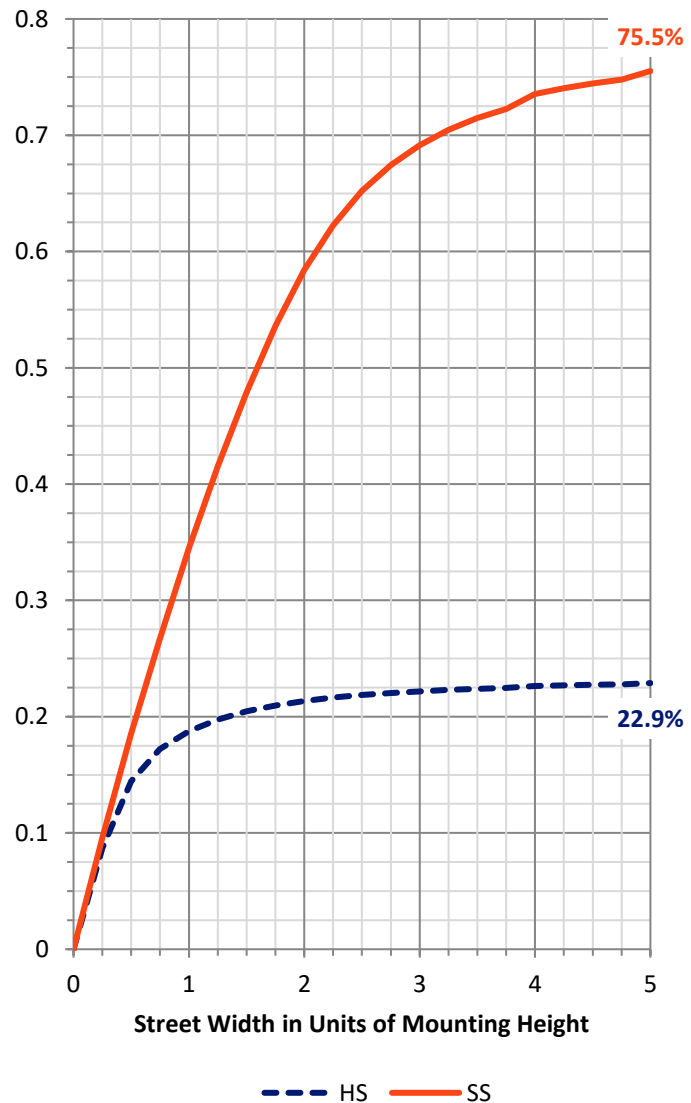
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14049.1	0.0	14049.1
	% Fixture	23.3	0.0	23.3
Street Side	Lumens	46149.9	0.0	46149.9
	% Fixture	76.7	0.0	76.7
Total	Lumens	60199.0	0.0	60199.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	641.4	1.1
10°-20°	1979.8	3.3
20°-30°	3363.5	5.6
30°-40°	5093.5	8.5
40°-50°	8424.6	14.0
50°-60°	12135.3	20.2
60°-70°	15304.3	25.4
70°-80°	10892.3	18.1
80°-90°	2364.2	3.9
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°	60199.0	100.0
0°-180°	60199.0	100.0



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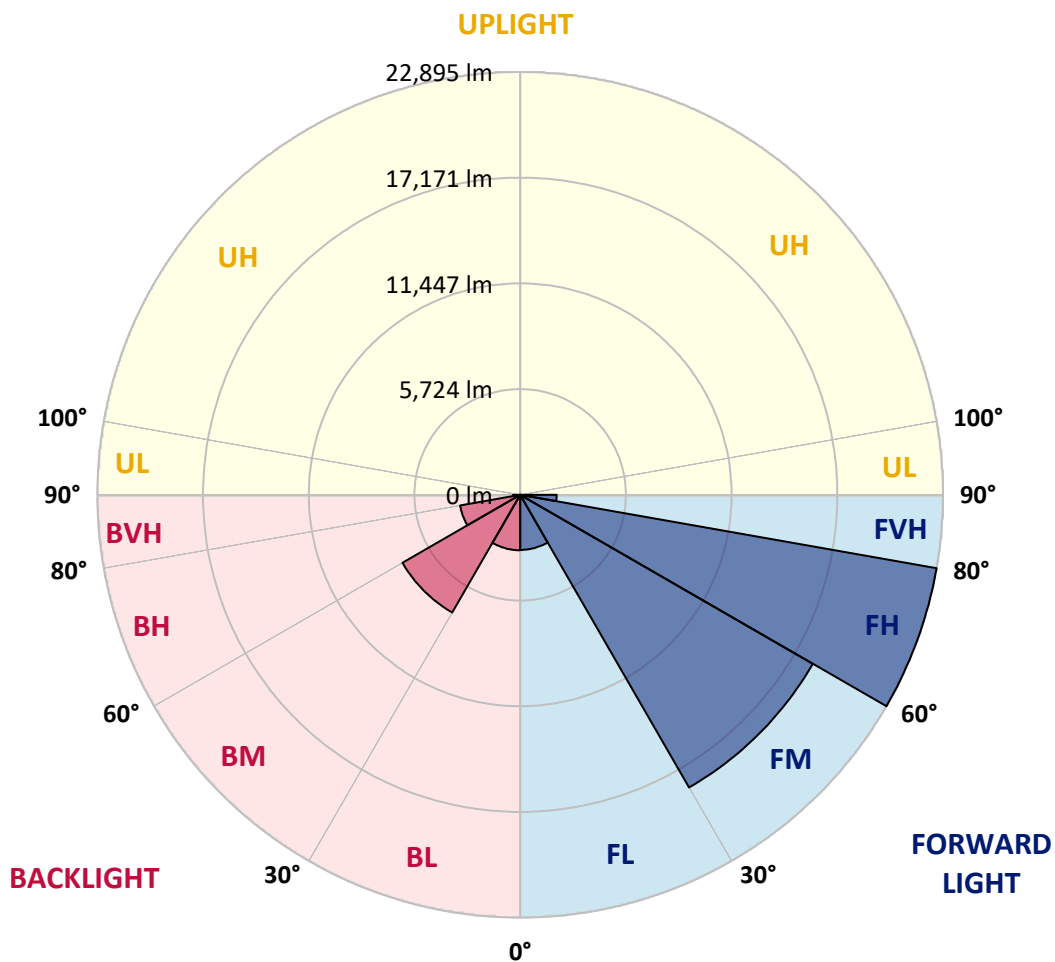
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2982.6	5.0			
FM	(30°-60°)	18296.4	30.4			
FH	(60°-80°)	22894.7	38.0			G5
FVH	(80°-90°)	1976.3	3.3			G5
BL	(0°-30°)	3002.1	5.0	B4/5000		
BM	(30°-60°)	7357.1	12.2	B4/8500		
BH	(60°-80°)	3302.0	5.5	B4/5000		G4/5000
BVH	(80°-90°)	388.0	0.6			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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	6631.8	6631.8	6631.8	6631.8	6631.8	6631.8	6631.8	6631.8	6631.8	6631.8	6631.8
2.5°	6608.3	6620.1	6612.3	6608.3	6557.5	6569.2	6588.8	6561.4	6627.9	6624.0	6663.1
5°	6545.8	6551.6	6553.6	6571.2	6522.3	6547.7	6571.2	6553.6	6624.0	6604.4	6659.2
7.5°	6528.2	6526.2	6528.2	6561.4	6508.6	6547.7	6575.1	6569.2	6645.5	6629.9	6696.4
10°	6483.2	6485.1	6491.0	6528.2	6500.8	6553.6	6602.5	6627.9	6729.6	6715.9	6792.2
12.5°	6405.0	6420.6	6442.1	6504.7	6510.6	6581.0	6653.3	6704.2	6837.2	6848.9	6944.7
15°	6336.5	6363.9	6401.0	6485.1	6520.3	6600.5	6692.4	6786.3	6960.4	7013.2	7134.4
17.5°	6358.0	6399.1	6448.0	6534.0	6559.5	6643.5	6747.2	6872.4	7087.5	7200.9	7357.4
20°	6491.0	6518.4	6559.5	6639.6	6672.9	6757.0	6841.1	6964.3	7244.0	7427.8	7621.4
22.5°	6657.2	6696.4	6723.7	6772.6	6811.7	6886.1	6974.1	7095.3	7425.8	7656.6	7922.6
25°	6835.2	6854.8	6893.9	6927.1	6976.0	7034.7	7134.4	7283.1	7633.1	7916.7	8288.3
27.5°	6999.5	7009.3	7083.6	7111.0	7206.8	7249.8	7328.0	7525.6	7903.0	8253.1	8710.7
30°	7240.0	7259.6	7316.3	7380.9	7521.7	7564.7	7644.9	7852.2	8262.9	8710.7	9260.3
32.5°	7695.7	7746.6	7738.7	7807.2	7973.4	8030.1	8139.7	8409.6	8857.4	9371.8	10025.0
35°	8618.8	8691.2	8601.2	8509.3	8597.3	8673.6	8841.8	9236.8	9790.3	10639.1	11284.5
37.5°	10130.6	10202.9	9882.2	9588.8	9397.2	9457.8	9686.6	10246.0	11092.8	12567.4	13287.1
40°	11896.6	11974.8	11528.9	11000.9	10568.7	10545.2	10615.6	11327.5	12549.8	14712.8	15274.1
42.5°	13435.7	13641.1	13058.3	12602.6	12043.3	11949.4	11779.2	12498.9	14090.9	16699.8	17016.6
45°	14931.9	15131.3	14671.7	14356.9	13785.8	13633.3	13310.6	13746.7	15602.7	18438.4	18452.1
47.5°	16304.8	16465.1	15931.2	15729.8	15166.5	15100.0	14769.5	15074.6	17002.9	19911.1	19633.4
50°	17840.0	18008.2	17157.4	16909.1	16455.3	16365.4	16257.8	16476.9	18608.6	21180.3	20636.7
52.5°	19717.5	19654.9	18604.7	18035.6	17795.0	17816.5	17695.3	17937.8	20312.0	22256.0	21426.8
55°	21964.6	21643.8	20490.0	19627.5	19074.0	19179.7	19021.2	19377.2	21995.9	23163.4	21997.8
57.5°	23241.7	23329.7	23220.2	22111.3	20703.2	20687.5	20437.2	20779.4	23466.6	23904.7	22346.0
60°	25103.5	25467.3	25606.1	25306.9	24043.5	23544.8	22291.2	22213.0	24708.4	24544.2	22523.9
62.5°	26280.8	26451.0	27286.1	27647.9	28054.7	28140.7	26149.8	23939.9	25625.7	24870.8	22598.2
65°	25717.6	25889.7	27450.4	28868.2	31281.6	31766.6	31133.0	26675.9	26245.6	24943.1	22349.9
67.5°	22831.0	23042.2	25136.7	28042.9	33233.4	33755.6	32732.7	29830.5	26449.0	24900.1	21810.1
68°	22408.5	22565.0	24372.1	27802.4	33429.0	33806.4	32627.1	30069.1	26460.8	24913.8	21643.8
70°	19162.1	19437.8	21340.7	25613.9	33114.1	33354.6	31968.0	29936.1	26194.8	24690.8	20427.4
72.5°	14935.8	15317.1	16764.4	21274.2	30585.4	30780.9	29619.2	28469.3	25391.0	23143.9	17509.5
75°	10820.9	11147.6	12540.0	16418.2	25748.9	26443.2	26247.6	26454.9	22760.6	19609.9	12680.8
77.5°	7472.8	7752.4	9051.0	12250.6	19965.9	20844.0	21859.0	22396.8	18702.5	14548.5	6027.5
80°	4787.6	5002.7	6107.7	8626.6	14397.9	15223.3	16316.5	16873.9	13302.7	7318.3	1069.8
82.5°	2814.3	2960.9	3715.9	5566.0	9704.2	10206.9	10734.9	9800.1	5339.1	1400.3	674.7
85°	1398.3	1496.1	1959.6	3148.7	6033.4	6494.9	6670.9	4181.3	1128.4	512.4	459.6
87.5°	625.8	653.2	841.0	1417.9	2867.1	3021.6	2947.3	1300.5	226.9	191.7	164.3
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°	6631.8	6631.8	6631.8	6631.8	6631.8	6631.8	6631.8	6631.8	6631.8	6631.8	6631.8
2.5°	6667.0	6651.4	6647.5	6672.9	6645.5	6678.8	6669.0	6743.3	6753.1	6725.7	6770.7
5°	6676.8	6669.0	6674.8	6721.8	6712.0	6780.4	6798.1	6872.4	6872.4	6850.9	6897.8
7.5°	6721.8	6721.8	6739.4	6825.4	6825.4	6884.1	6903.7	6985.8	6983.8	6983.8	7026.9
10°	6835.2	6835.2	6872.4	6981.9	6954.5	7030.8	7040.6	7083.6	7073.8	7075.8	7120.7
12.5°	7003.4	7013.2	7077.7	7173.5	7155.9	7183.3	7163.8	7155.9	7085.5	7085.5	7114.9
15°	7197.0	7238.1	7326.1	7414.1	7355.4	7345.6	7234.2	7136.4	6985.8	6921.3	6954.5
17.5°	7449.3	7519.7	7621.4	7684.0	7572.5	7492.3	7290.9	7036.6	6792.2	6649.4	6653.3
20°	7729.0	7822.8	7948.0	7969.5	7805.2	7605.8	7269.4	6870.4	6449.9	6223.1	6207.4
22.5°	8039.9	8157.3	8302.0	8217.9	7950.0	7625.3	7144.2	6614.2	6049.0	5667.6	5661.8
25°	8419.3	8546.5	8638.4	8403.7	7983.2	7525.6	6927.1	6215.2	5517.1	5106.4	5079.0
27.5°	8902.4	8986.5	8918.0	8499.5	7883.5	7287.0	6559.5	5702.9	4963.6	4592.0	4550.9
30°	9475.4	9465.6	9094.1	8472.1	7682.0	6909.5	6058.8	5147.4	4509.9	4191.1	4153.9
32.5°	10171.7	10030.8	9264.2	8341.1	7357.4	6414.7	5464.3	4685.9	4181.3	3858.6	3819.5
35°	11282.5	10885.5	9485.2	8143.6	6905.6	5818.2	4903.0	4329.9	3927.1	3557.4	3481.2
37.5°	13005.5	12168.4	9852.9	7936.3	6387.4	5233.5	4484.4	4071.8	3727.6	3309.1	3219.1
40°	14777.3	13658.7	10412.2	7713.3	5902.3	4791.5	4247.8	3950.5	3606.3	3203.5	3113.5
42.5°	16316.5	15049.2	11083.0	7433.7	5405.6	4443.4	4126.5	3911.4	3567.2	3183.9	3097.8
45°	17675.7	16298.9	11783.2	7109.0	4885.4	4161.8	4022.9	3856.7	3508.5	3138.9	3060.7
47.5°	18808.1	17294.3	12399.2	6749.2	4374.9	3954.4	3921.2	3727.6	3397.1	3041.1	2974.6
50°	19684.2	18002.3	12811.9	6348.2	3938.8	3792.1	3774.5	3530.1	3209.3	2869.0	2802.5
52.5°	20306.1	18477.6	13052.4	6197.6	3596.6	3604.4	3575.0	3314.9	3004.0	2665.6	2612.8
55°	20701.2	18804.2	12993.7	6004.0	3250.4	3340.4	3344.3	3156.5	2882.7	2554.2	2511.1
57.5°	20851.8	18790.5	12647.6	5034.0	2914.0	3023.5	3076.3	3047.0	2804.5	2483.8	2448.5
60°	20769.6	18569.5	11910.3	3688.5	2565.9	2714.5	2843.6	2837.7	2632.4	2329.3	2292.1
62.5°	20632.7	18057.1	10465.0	2640.2	2303.8	2495.5	2651.9	2599.1	2403.6	2137.6	2112.2
65°	20141.9	17153.5	8090.8	2112.2	2194.3	2372.3	2501.4	2411.4	2219.7	1942.0	1928.3
67.5°	19056.4	15346.5	4723.0	1926.4	2114.1	2268.6	2360.5	2249.1	2071.1	1801.2	1777.7
68°	18688.8	14883.0	4017.0	1908.8	2098.5	2243.2	2327.3	2210.0	2035.9	1773.8	1750.4
70°	16832.8	12062.8	1916.6	1836.4	2030.0	2125.9	2174.8	2067.2	1897.0	1664.3	1648.7
72.5°	13101.3	7277.2	1281.0	1726.9	1897.0	1989.0	2000.7	1832.5	1672.1	1500.0	1490.3
75°	7740.7	2415.3	1191.0	1564.6	1713.2	1840.3	1873.6	1705.4	1527.4	1327.9	1324.0
77.5°	1885.3	936.8	1124.5	1396.4	1552.8	1676.0	1701.5	1578.3	1421.8	1196.9	1189.1
80°	776.4	778.4	1048.3	1157.8	1331.8	1451.1	1488.3	1378.8	1238.0	1093.2	1077.6
82.5°	645.4	657.1	889.8	854.6	1065.9	1204.7	1241.9	1165.6	1116.7	960.3	944.6
85°	459.6	582.8	590.6	575.0	747.1	858.6	1046.3	1009.1	956.3	823.4	745.1
87.5°	215.1	340.3	256.2	246.4	379.4	508.5	598.4	627.8	543.7	422.4	391.1
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)