

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: P591333

Luminaire Tested: **CTN-CA10-760-730-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P591333  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2201-495-12)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/19/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-760-730-U-T4-SSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE  
Light Source: (10) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 45989 lumens  
Efficiency: N/A  
Efficacy: 60.4 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')  
IES Classification: Type II - Short  
BUG Rating: B5 - U0 - G4

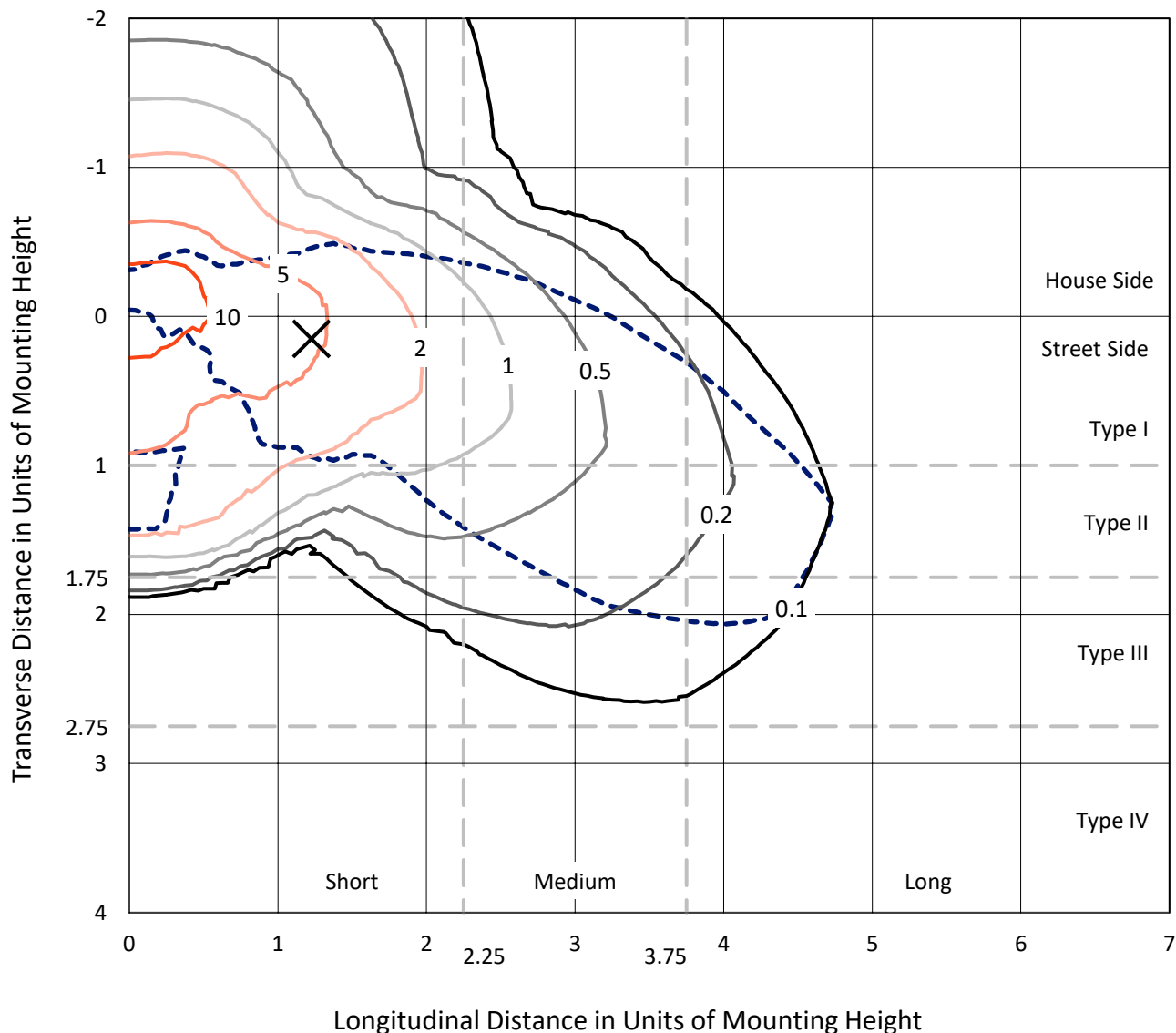
Input Watts (W): 761.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

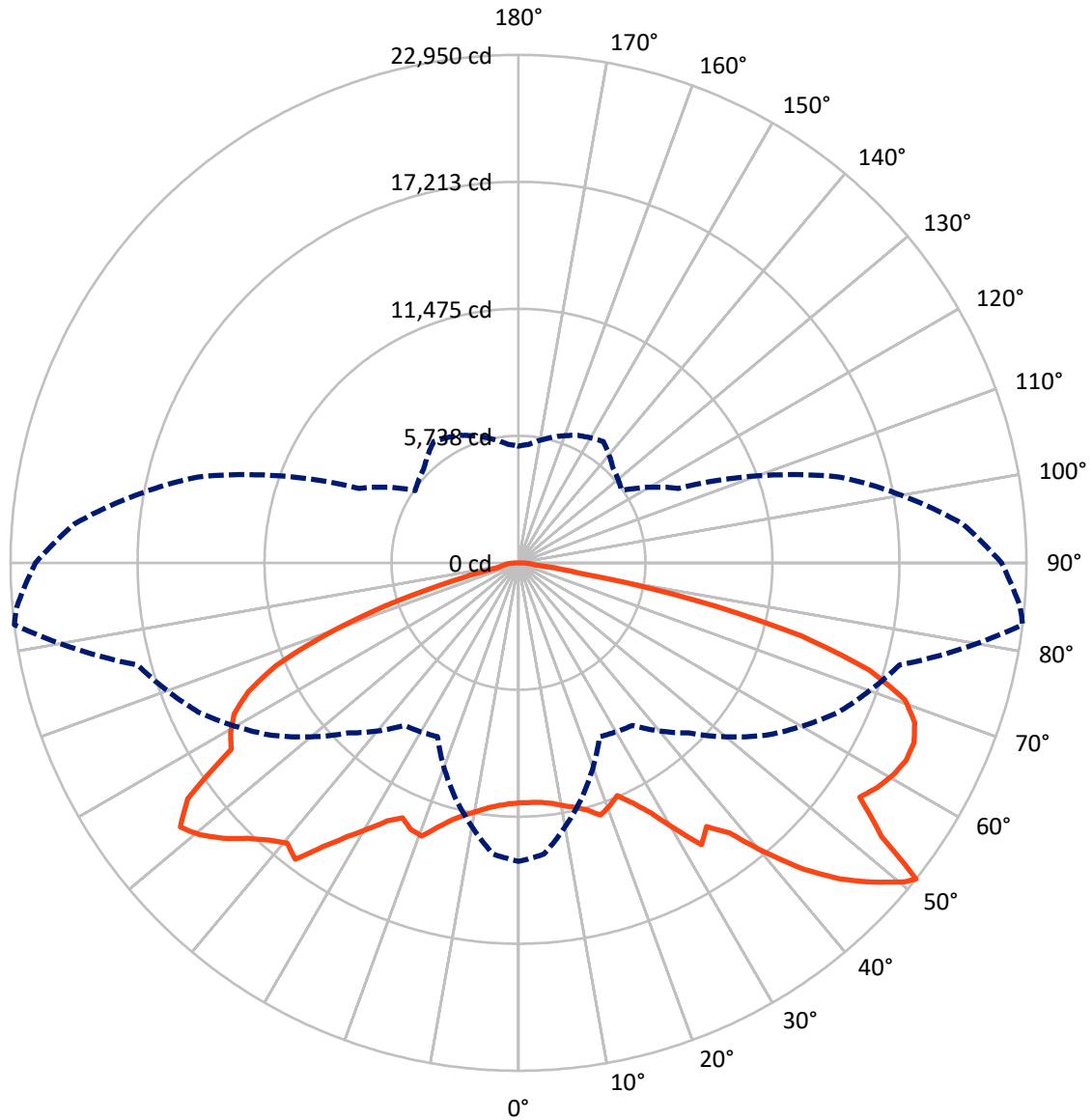
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.8 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral      - - - Horizontal Cone Through 51-Deg Vertical

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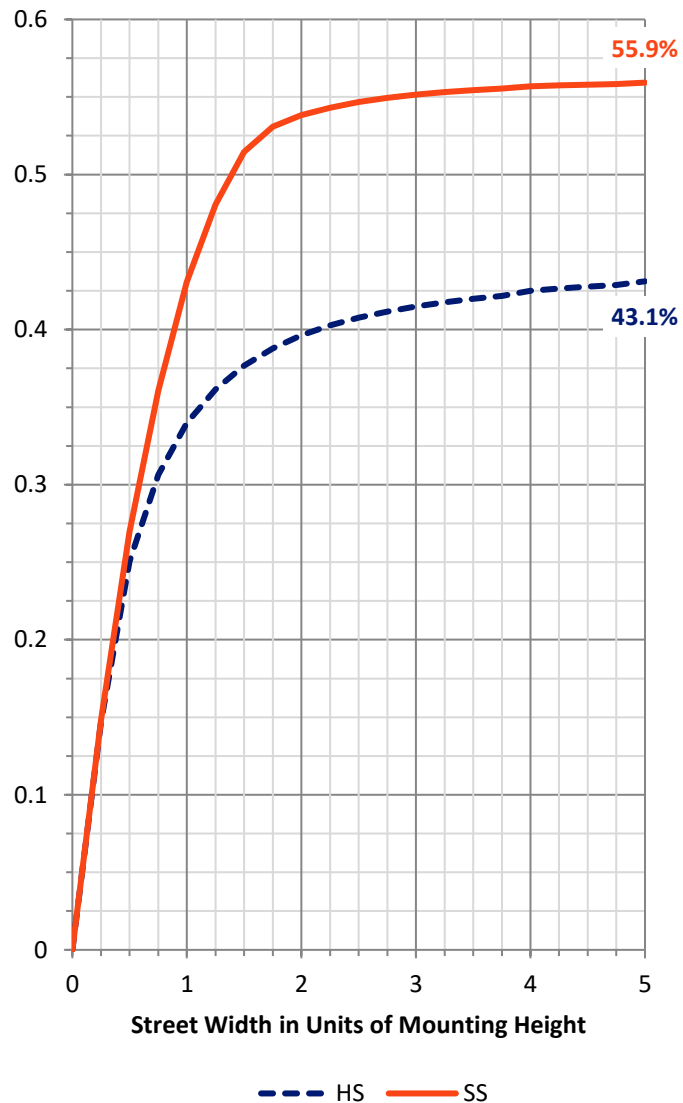
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	20269.9	0.0	20269.9
	% Fixture	44.1	0.0	44.1
<b>Street Side</b>	Lumens	25719.0	0.0	25719.0
	% Fixture	55.9	0.0	55.9
<b>Total</b>	Lumens	45989.0	0.0	45989.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1058.9	2.3
10°-20°	3222.6	7.0
20°-30°	5006.0	10.9
30°-40°	6698.2	14.6
40°-50°	8690.1	18.9
50°-60°	9255.2	20.1
60°-70°	6447.2	14.0
70°-80°	4498.0	9.8
80°-90°	1112.9	2.4
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°	45989.0	100.0
0°-180°	45989.0	100.0

**Coefficient of Utilization**

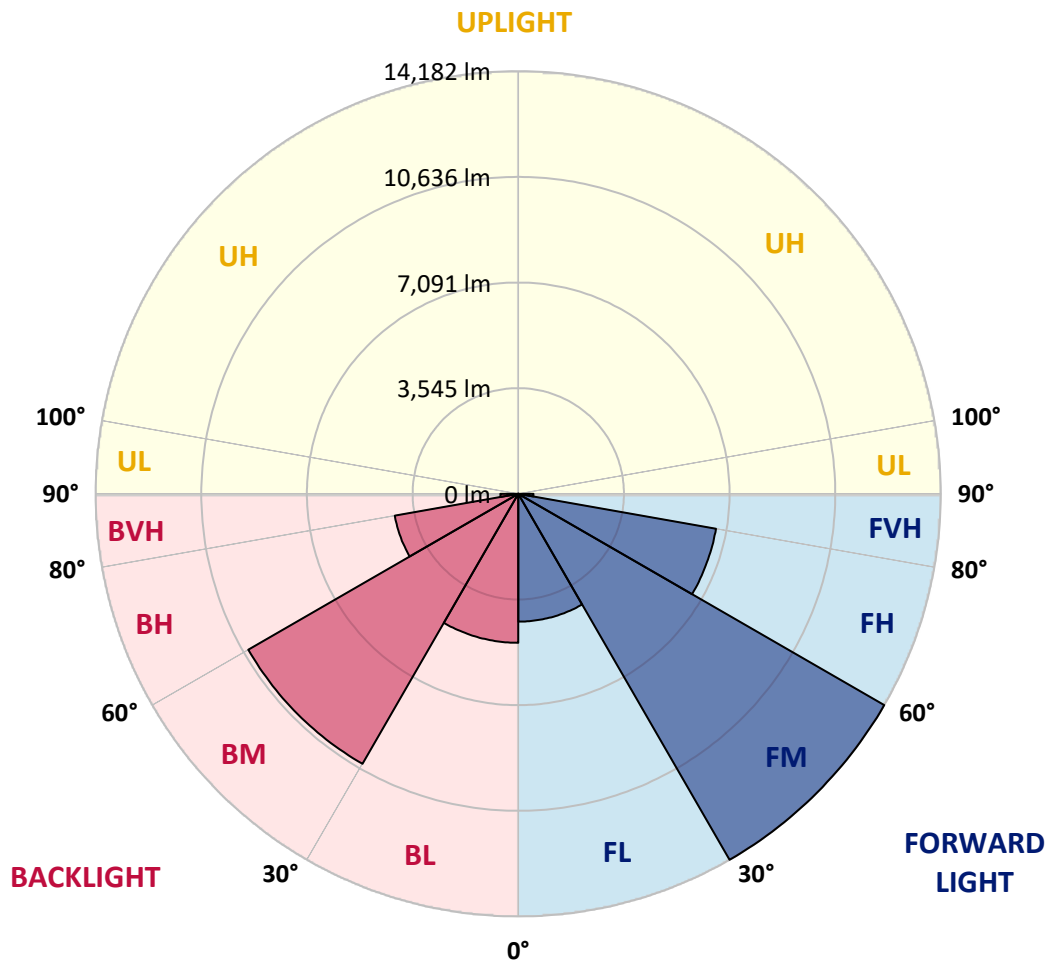


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4288.0	9.3			
FM	(30°-60°)	14181.7	30.8			
FH	(60°-80°)	6738.4	14.7			G3/7500
FVH	(80°-90°)	510.9	1.1			G4/750
BL	(0°-30°)	4999.4	10.9	B4/5000		
BM	(30°-60°)	10461.8	22.7	B5		
BH	(60°-80°)	4206.8	9.1	B4/5000		G4/5000
BVH	(80°-90°)	601.9	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°	83°	85°
0°	10839.7	10839.7	10839.7	10839.7	10839.7	10839.7	10839.7	10839.7	10839.7	10839.7	10839.7
2.5°	10710.4	10636.1	10642.5	10742.8	10610.2	10697.5	10684.6	10839.7	10810.6	10843.0	10865.6
5°	10616.7	10558.5	10558.5	10691.0	10597.3	10691.0	10626.4	10762.1	10807.4	10878.5	10904.4
7.5°	10636.1	10574.6	10600.5	10716.9	10613.4	10710.4	10707.2	10836.5	10852.7	10978.8	11020.8
10°	10691.0	10623.1	10636.1	10729.8	10671.6	10839.7	10810.6	10988.4	10988.4	11156.6	11221.2
12.5°	10577.9	10532.6	10558.5	10684.6	10736.3	10910.9	10949.7	11130.7	11156.6	11337.6	11418.4
15°	10455.0	10390.4	10474.4	10655.5	10742.8	10994.9	11079.0	11357.0	11395.8	11583.3	11673.8
17.5°	9860.2	9818.2	9973.3	10118.8	10167.3	10413.0	10577.9	11040.2	11596.2	11987.4	12094.1
20°	8677.0	8670.5	8382.8	8321.3	9074.6	9973.3	10086.5	10480.9	11124.2	11735.2	11951.8
22.5°	7244.8	7438.8	8373.1	8670.5	8651.1	9006.7	10455.0	10826.8	11111.3	11421.7	11551.0
25°	7244.8	7228.6	7781.5	9061.7	9064.9	9216.8	9540.1	11402.3	11673.8	12029.4	12132.9
27.5°	7474.3	7490.5	7454.9	8389.2	9511.0	9653.3	9792.3	10755.7	12420.6	12815.0	12986.3
30°	7862.3	7888.1	7745.9	7749.1	9659.7	10086.5	10351.6	10729.8	12941.1	13953.0	14030.6
32.5°	8628.5	8618.8	8441.0	8211.4	8476.5	10510.0	10897.9	11389.3	12119.9	15181.5	15362.5
35°	9239.5	9197.5	9074.6	8916.2	8567.0	10390.4	11418.4	12097.3	13028.4	14635.1	15592.0
37.5°	9918.4	9857.0	9717.9	9524.0	9207.1	7251.3	11932.4	12905.5	14350.6	15491.8	15553.2
40°	10684.6	10616.7	10425.9	10141.4	9737.3	7429.1	12162.0	13904.5	16073.7	17221.4	17211.7
42.5°	11272.9	11205.0	11104.8	10804.2	8560.6	8195.3	10607.0	15307.5	17939.1	18934.8	18850.7
45°	11770.8	11712.6	11722.3	11405.5	8030.4	9136.0	11816.1	16041.4	19697.7	20376.6	20266.7
47.5°	12158.7	12068.2	11822.5	9595.1	8237.3	9785.8	12798.8	13991.8	21181.6	21566.3	21443.5
50°	13102.7	12950.8	11489.5	8518.6	8761.0	10581.1	13733.1	15433.6	19293.6	22649.3	22432.7
51°	13487.4	13212.6	11011.1	8667.3	8967.9	10868.8	13594.1	15957.3	17822.7	22950.0	22756.0
52.5°	13891.5	13348.4	9698.5	8893.6	9220.1	11266.5	11547.7	16762.3	18233.3	20538.3	21682.7
55°	11719.1	11932.4	10015.4	9721.2	9698.5	9737.3	11793.4	17961.7	19090.0	18702.0	18475.7
57.5°	6892.4	7018.5	10173.8	10885.0	8392.5	7733.0	12443.2	18866.9	19830.3	19132.0	18879.8
60°	3465.6	3627.3	3704.8	3378.3	4526.0	7054.1	10480.9	13674.9	20282.9	19455.3	19151.4
62.5°	151.9	252.2	100.2	109.9	184.3	2460.2	7700.6	14046.7	20664.4	19652.5	19251.6
65°	12.9	12.9	16.2	32.3	80.8	2583.0	8570.3	14560.7	20819.5	19633.1	19096.4
67.5°	3.2	3.2	6.5	22.6	58.2	2796.4	9591.9	14770.9	20826.0	19303.3	18647.1
70°	0.0	3.2	6.5	19.4	51.7	2925.7	9814.9	14728.9	20560.9	18527.4	17625.5
72.5°	0.0	0.0	3.2	16.2	45.3	2760.9	9556.3	14644.8	19655.7	16574.8	15294.6
75°	0.0	0.0	3.2	12.9	38.8	2809.3	9582.2	13700.8	17163.2	13196.5	11641.5
77.5°	0.0	0.0	3.2	12.9	35.6	2592.7	8773.9	11864.6	13565.0	8214.7	6514.2
80°	0.0	0.0	3.2	12.9	32.3	2224.2	7215.7	9262.1	7590.7	2786.7	1797.5
82.5°	0.0	0.0	3.2	12.9	25.9	1506.5	4794.3	4629.4	1529.1	798.5	717.7
85°	0.0	0.0	3.2	9.7	19.4	898.7	2402.0	630.4	591.6	507.6	459.1
87.5°	0.0	0.0	3.2	6.5	12.9	381.5	740.3	194.0	245.7	206.9	184.3
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°	10839.7	10839.7	10839.7	10839.7	10839.7	10839.7	10839.7	10839.7	10839.7	10839.7	10839.7
2.5°	10885.0	10885.0	10920.6	11040.2	11027.2	11124.2	11069.3	11188.9	11198.6	11176.0	11230.9
5°	10927.0	10965.8	11085.4	11211.5	11159.8	11302.0	11369.9	11528.3	11521.9	11502.5	11567.1
7.5°	11046.6	11127.5	11247.1	11399.0	11454.0	11570.4	11576.8	11793.4	11780.5	11770.8	11835.5
10°	11247.1	11353.8	11486.3	11715.8	11683.5	11851.6	11780.5	11938.9	11935.7	11929.2	11993.9
12.5°	11454.0	11609.2	11770.8	11993.9	11990.6	11997.1	11935.7	12016.5	12000.3	11955.1	12003.6
15°	11744.9	11951.8	12174.9	12336.5	12194.3	12165.2	12029.4	11980.9	11887.2	11757.9	11796.7
17.5°	12226.6	12430.3	12714.8	12802.1	12569.3	12436.8	12068.2	11799.9	11508.9	11311.7	11353.8
20°	12659.8	13038.1	13309.6	13303.2	13005.7	12656.6	12084.4	11631.8	11069.3	10687.8	10655.5
22.5°	12119.9	12756.8	13940.0	13801.0	13280.5	12785.9	12065.0	11363.5	10429.2	9837.6	9814.9
25°	12430.3	12443.2	13503.6	14079.1	13403.4	12731.0	11832.2	10894.7	9698.5	9084.3	9048.7
27.5°	13222.3	13151.2	12857.0	13781.6	13290.2	12449.7	11363.5	10096.2	9032.6	8499.2	8473.3
30°	14163.1	13943.3	13251.4	12339.8	12824.7	11903.3	10642.5	9278.3	8431.3	7946.3	7907.5
32.5°	15288.1	14825.8	13610.3	12181.4	11298.8	11079.0	9711.5	8631.7	7933.4	7429.1	7328.9
35°	16623.3	15931.5	13956.2	11913.0	10109.1	9857.0	8835.4	8049.8	7464.6	6953.9	6853.6
37.5°	16620.1	17341.0	14467.0	11544.5	9372.0	8486.2	8198.5	7661.8	7138.1	6520.7	6407.5
40°	16742.9	16765.5	15029.5	11185.7	8683.4	7781.5	7820.3	7471.1	6931.2	6252.3	6135.9
42.5°	18236.5	17137.3	15718.1	10704.0	8033.6	7261.0	7658.6	7403.2	6821.3	6126.2	5996.9
45°	19536.1	18268.8	14208.4	10177.0	7351.5	6856.9	7529.3	7244.8	6666.1	5974.3	5828.8
47.5°	20667.6	19167.6	14593.1	9255.6	6685.5	6527.1	7280.4	6940.9	6388.1	5744.8	5615.5
50°	21527.5	19911.1	14929.3	8017.5	6039.0	6197.4	6876.3	6530.4	5996.9	5476.4	5366.5
51°	21821.7	20150.3	14997.2	7962.5	5696.3	6042.2	6685.5	6349.3	5870.9	5373.0	5272.8
52.5°	22138.5	20460.7	15097.4	8085.4	5211.4	5786.8	6375.2	6081.0	5683.3	5256.6	5143.5
55°	18407.8	19225.7	14842.0	7826.7	4648.8	5279.2	5806.2	5673.6	5453.8	5075.6	4994.7
57.5°	17735.4	16267.7	12310.7	6627.3	4154.2	4674.7	5253.4	5340.7	5172.6	4787.8	4729.7
60°	17880.9	16119.0	10962.6	4943.0	3662.8	4134.8	4839.6	4917.2	4771.7	4480.7	4399.9
62.5°	17855.0	15737.5	9776.1	3481.8	3236.1	3853.6	4542.2	4574.5	4374.0	4131.6	4057.2
65°	17428.3	14861.4	8156.5	2634.8	3000.1	3698.4	4367.6	4383.7	4134.8	3824.5	3785.7
67.5°	16477.8	13474.5	5673.6	2314.7	2867.5	3578.8	4251.2	4180.1	3940.8	3614.3	3556.1
70°	14657.7	10978.8	2650.9	2130.4	2667.1	3358.9	3966.7	3882.6	3620.8	3316.9	3265.2
72.5°	11751.4	7629.5	1257.6	1949.4	2457.0	3084.1	3617.6	3485.0	3268.4	3155.3	3126.2
75°	7690.9	3582.0	1050.7	1755.4	2178.9	2751.2	3316.9	3268.4	3068.0	2841.7	2731.8
77.5°	3119.7	944.0	950.5	1558.2	1955.9	2534.6	2996.8	2958.1	2693.0	2489.3	2444.0
80°	785.6	708.0	869.6	1286.7	1703.7	2208.0	2628.3	2518.4	2421.4	2201.6	2130.4
82.5°	598.1	569.0	682.1	995.7	1399.8	1820.1	2243.6	2288.9	2127.2	1959.1	1923.5
85°	417.0	517.3	413.8	708.0	1037.7	1435.4	1881.5	1962.3	1852.4	1661.7	1532.4
87.5°	229.5	271.6	171.3	371.8	549.6	785.6	1079.8	1089.5	902.0	827.6	779.1
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)