

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: P237569

Luminaire Tested: **CTN-8-4-D-E1-T2-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237569
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-8-4-D-E1-T2-7050-HSS
Description: CELESTEON HIGH MAST LUMINAIRE
(8) 70 CRI, 5000K LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39600 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

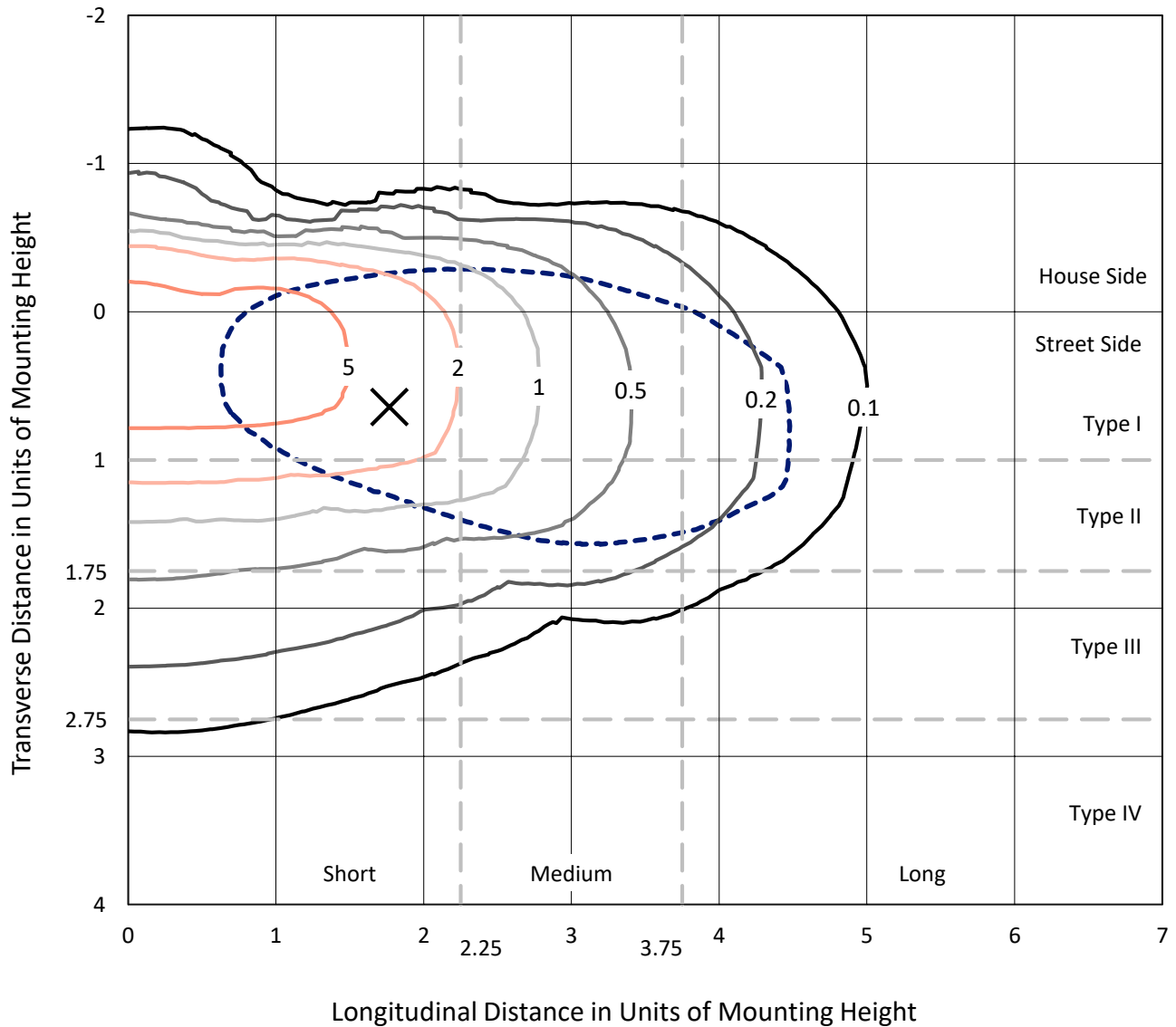
Input Watts (W): 325
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

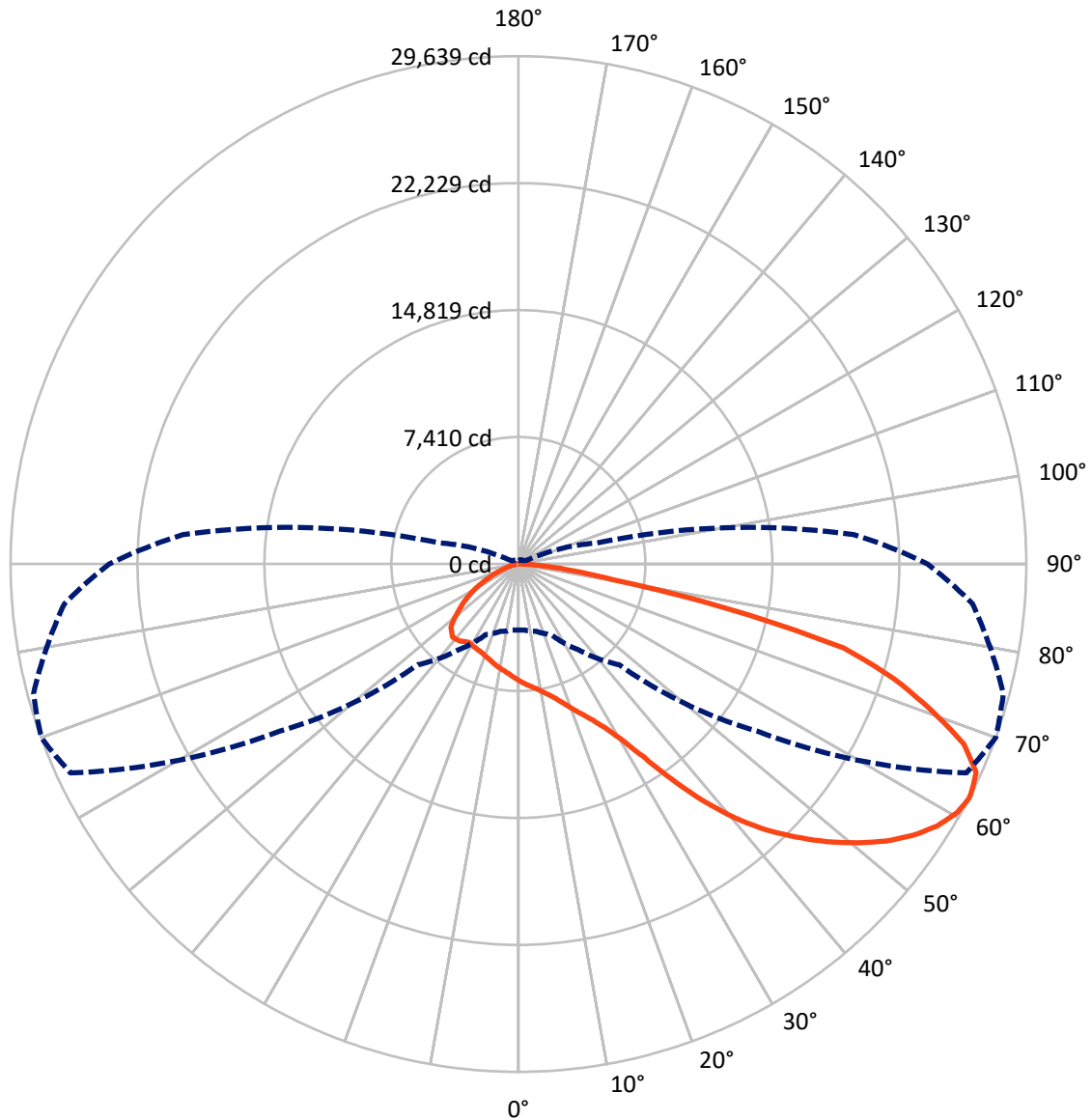
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.8 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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

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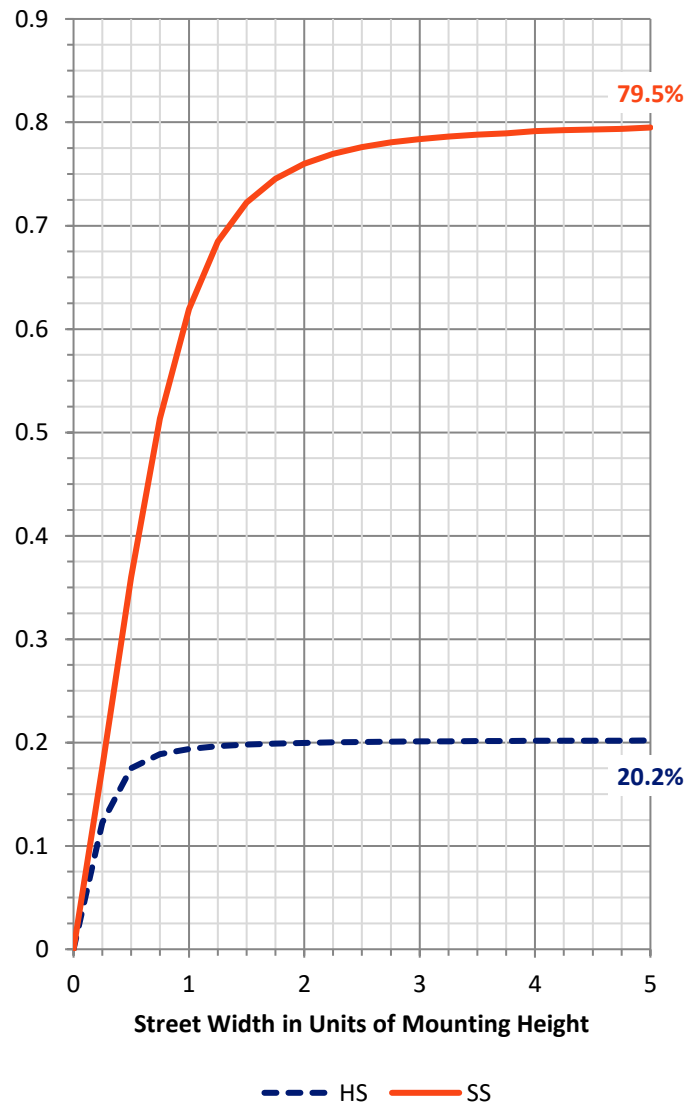
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8100.5	0.0	8100.5
	% Fixture	20.5	0.0	20.5
Street Side	Lumens	31499.5	0.0	31499.5
	% Fixture	79.5	0.0	79.5
Total	Lumens	39600.0	0.0	39600.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	648.9	1.6
10°-20°	1974.4	5.0
20°-30°	3324.1	8.4
30°-40°	5019.2	12.7
40°-50°	7038.5	17.8
50°-60°	8226.4	20.8
60°-70°	7981.1	20.2
70°-80°	4665.7	11.8
80°-90°	721.7	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°	39600.0	100.0
0°-180°	39600.0	100.0



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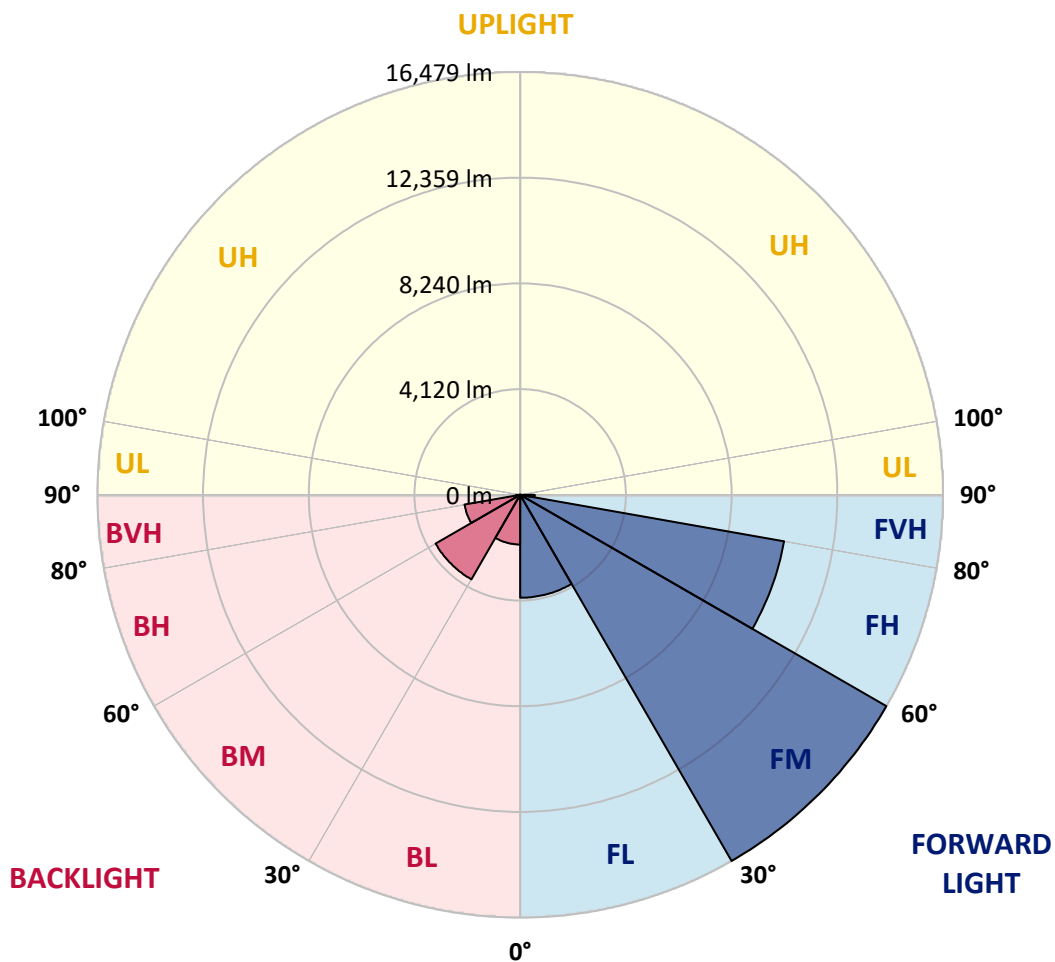
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4010.6	10.1			
FM	(30°-60°)	16479.0	41.6			
FH	(60°-80°)	10444.2	26.4			G4/12000
FVH	(80°-90°)	565.6	1.4			G4/750
BL	(0°-30°)	1936.8	4.9	B3/2500		
BM	(30°-60°)	3805.1	9.6	B3/5000		
BH	(60°-80°)	2202.6	5.6	B3/2500		G3/2500
BVH	(80°-90°)	156.1	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	75°	85°
0°	6812.7	6812.7	6812.7	6812.7	6812.7	6812.7	6812.7	6812.7	6812.7	6812.7	6812.7
2.5°	7393.3	7344.3	7323.3	7354.1	7148.5	7152.7	7053.3	7037.9	6990.4	6923.2	6849.1
5°	7815.7	7758.4	7729.0	7747.2	7530.4	7492.6	7330.3	7250.6	7156.9	7072.9	6912.0
7.5°	8221.4	8162.7	8140.3	8130.5	7868.9	7811.5	7604.5	7463.2	7335.9	7228.2	7010.0
10°	8629.9	8569.8	8523.6	8536.2	8262.0	8159.9	7920.7	7726.2	7562.5	7422.6	7121.9
12.5°	9035.6	8962.9	8912.5	8912.5	8642.5	8543.2	8274.6	8025.6	7817.1	7640.9	7263.2
15°	9451.1	9355.9	9344.8	9344.8	9058.0	8937.7	8673.3	8397.7	8141.7	7915.1	7433.8
17.5°	9880.5	9760.2	9757.4	9775.6	9512.6	9376.9	9127.9	8870.5	8544.6	8257.8	7642.3
20°	10163.1	10055.4	10030.2	10084.8	9877.7	9789.6	9522.4	9342.0	9028.6	8687.3	7910.9
22.5°	10378.6	10312.8	10336.6	10426.1	10325.4	10249.9	9968.7	9806.4	9523.8	9174.1	8273.2
25°	10595.4	10552.0	10606.6	10764.7	10773.0	10794.0	10559.0	10352.0	10089.0	9777.0	8744.6
27.5°	10528.2	10515.6	10680.7	11006.7	11185.7	11280.9	11149.4	11076.6	10836.0	10507.3	9337.8
30°	10577.2	10546.4	10745.1	11157.7	11556.4	11832.0	11832.0	11997.1	11892.2	11562.0	10242.9
32.5°	10431.7	10374.4	10602.4	11194.1	11879.6	12415.4	12653.2	13237.9	13421.2	13302.3	12037.7
35°	9761.6	9805.0	10251.3	11048.6	12102.0	12986.1	13615.6	14869.1	15432.8	15567.1	14103.9
37.5°	9343.4	9361.5	9816.2	10810.8	12180.4	13547.1	14669.0	16752.0	17550.8	17633.3	15916.9
40°	8767.0	8835.5	9344.8	10491.9	12135.6	14021.3	15803.5	18608.4	19496.7	19428.1	17503.2
42.5°	8312.4	8331.9	8776.8	9985.5	11939.7	14399.0	16947.9	20294.1	21224.3	21032.7	19071.4
45°	7745.8	7782.2	8203.2	9355.9	11591.4	14590.7	17935.5	21874.8	22726.8	22487.6	20429.8
47.5°	7060.3	7219.8	7660.5	8677.5	11001.1	14571.1	18772.0	23243.0	24215.2	23847.3	21700.0
50°	5686.6	5881.0	6762.4	8066.1	10227.5	14296.9	19437.9	24749.6	25582.0	25211.3	22859.7
52.5°	4967.5	5005.3	5454.4	7379.3	9321.0	13684.2	19891.2	25994.6	26862.0	26471.7	23974.6
55°	4643.0	4682.2	4908.8	6267.1	8488.6	12598.6	20057.6	27182.3	27951.7	27504.1	24893.7
57.5°	4359.0	4371.6	4638.8	5300.5	7695.4	11168.9	19706.5	28172.8	28831.6	28223.1	25531.6
60°	4034.5	4084.8	4347.8	4838.8	6801.5	9508.4	18503.5	28806.5	29429.0	28887.6	26193.3
62°	3852.6	3865.2	4070.8	4552.1	6109.1	8308.2	17005.2	28842.8	29638.8	29296.1	26600.4
62.5°	3799.5	3807.8	4002.3	4479.3	5966.4	8070.3	16596.7	28813.5	29626.2	29367.4	26689.9
65°	3494.5	3514.1	3688.9	4135.2	5341.1	7142.9	14683.0	28333.6	29356.2	29247.1	26681.5
67.5°	3123.8	3129.4	3315.4	3716.9	4696.2	6271.3	12332.8	27415.9	28034.3	27893.0	25513.4
70°	2554.4	2656.5	2859.4	3213.3	3884.8	5202.6	9381.1	24558.0	25572.2	25712.1	23420.6
72.5°	1941.7	1934.7	2006.0	2252.3	2830.0	3996.7	6332.9	20576.6	22926.8	23683.6	21111.0
75°	1198.9	1245.0	1544.4	1741.6	2028.4	2818.8	3970.1	14323.5	19604.4	20912.4	18660.1
77.5°	931.7	940.1	1095.4	1436.7	1661.9	1997.7	2476.1	7804.5	12289.5	15541.9	14533.3
80°	709.3	724.6	826.8	900.9	1169.5	1217.1	1652.1	4037.3	5597.1	7839.5	9763.0
82.5°	428.1	451.8	547.0	590.3	644.9	609.9	888.3	2178.1	3102.8	4012.1	4971.7
85°	215.4	258.8	363.7	344.1	292.4	270.0	380.5	1053.4	1482.9	1962.7	2281.6
87.5°	54.6	65.7	85.3	102.1	86.7	71.3	103.5	285.4	293.8	281.2	787.6
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°	6812.7	6812.7	6812.7	6812.7	6812.7	6812.7	6812.7	6812.7	6812.7	6812.7	6812.7
2.5°	6823.9	6766.6	6661.6	6601.5	6451.8	6394.4	6286.7	6325.9	6302.1	6278.3	6279.7
5°	6835.1	6731.6	6531.5	6387.4	6170.6	6060.1	5918.8	5896.4	5834.9	5797.1	5801.3
7.5°	6858.9	6710.6	6428.0	6198.6	5893.6	5720.2	5531.3	5499.1	5406.8	5364.8	5370.4
10°	6919.0	6744.2	6360.9	6023.7	5679.6	5439.0	5218.0	5146.6	5058.5	5010.9	5008.1
12.5°	7011.4	6794.5	6265.7	5890.8	5472.6	5160.6	4906.0	4791.3	4665.4	4623.4	4627.6
15°	7158.2	6858.9	6186.0	5707.6	5222.2	4897.6	4582.8	4444.4	4311.5	4262.5	4258.3
17.5°	7337.3	6917.6	6130.0	5492.1	5005.3	4616.4	4339.4	4150.6	3926.8	3894.6	3859.6
20°	7515.0	7035.1	6079.7	5335.5	4747.9	4333.8	3971.5	3778.5	3458.1	3337.8	3294.4
22.5°	7773.8	7221.2	6072.7	5149.4	4489.1	4024.7	3536.5	3224.5	2872.0	2667.7	2623.0
25°	8119.3	7425.4	6090.9	5008.1	4199.5	3631.6	2972.7	2522.2	2186.5	1955.7	1908.1
27.5°	8568.4	7703.8	6145.4	4852.8	3936.5	3160.1	2340.4	1877.3	1593.4	1400.3	1355.5
30°	9230.0	8171.1	6230.8	4708.7	3553.2	2546.0	1720.7	1352.8	1131.7	1012.8	1011.4
32.5°	10774.4	9214.7	6279.7	4529.7	3196.5	1924.9	1238.0	979.2	803.0	758.2	796.0
35°	12545.5	10693.3	6657.4	4336.6	2638.4	1415.7	884.1	696.7	623.9	635.1	656.1
37.5°	14179.4	12114.6	7233.8	4023.3	2112.4	997.4	635.1	554.0	538.6	579.2	616.9
40°	15625.9	13342.9	7727.6	3679.1	1494.0	696.7	509.2	512.0	496.6	514.8	527.4
42.5°	17044.4	14481.6	8249.4	3216.1	996.0	514.8	460.2	485.4	467.2	470.0	451.8
45°	18454.5	15683.2	8474.6	2643.9	667.3	446.3	430.9	460.2	458.8	447.7	421.1
47.5°	19671.5	16511.4	8760.0	1994.9	496.6	405.7	409.9	430.9	444.9	425.3	412.7
50°	20717.9	17389.9	8540.4	1320.6	443.5	379.1	394.5	394.5	416.9	383.3	367.9
52.5°	21718.2	18264.2	7976.6	870.1	407.1	360.9	376.3	366.5	376.3	342.7	338.5
55°	22318.3	18716.1	7295.3	678.5	384.7	345.5	352.5	349.7	341.3	306.4	313.4
57.5°	22978.6	19236.5	6447.6	569.4	374.9	327.3	328.7	324.5	299.4	275.6	277.0
60°	23506.0	19625.4	5541.1	502.2	363.7	317.6	298.0	291.0	256.0	242.0	243.4
62°	23875.3	19643.6	4750.7	467.2	349.7	310.6	279.8	264.4	225.2	214.0	212.6
62.5°	23915.9	19575.0	4557.7	458.8	344.1	307.8	278.4	256.0	216.8	208.4	205.6
65°	23764.8	18812.6	3635.8	412.7	320.4	291.0	258.8	222.4	186.1	174.9	170.7
67.5°	22640.0	17447.3	2776.8	374.9	291.0	279.8	239.2	195.8	165.1	151.1	148.3
70°	20446.5	15599.3	1982.3	327.3	261.6	254.6	240.6	179.1	152.5	132.9	130.1
72.5°	18009.6	13632.4	1348.6	291.0	232.2	209.8	177.7	169.3	142.7	117.5	114.7
75°	15326.5	10857.0	959.7	250.4	200.0	177.7	149.7	156.7	134.3	104.9	102.1
77.5°	11759.3	7985.0	712.0	205.6	155.3	144.1	125.9	138.5	121.7	95.1	93.7
80°	8029.8	5514.5	506.4	155.3	102.1	102.1	106.3	118.9	107.7	85.3	83.9
82.5°	4514.3	2902.7	299.4	111.9	69.9	69.9	82.5	96.5	89.5	74.1	72.7
85°	1870.3	1050.6	158.1	69.9	46.2	47.6	58.8	71.3	69.9	58.8	57.4
87.5°	650.5	264.4	46.2	23.8	19.6	21.0	23.8	33.6	33.6	29.4	30.8
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)