

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: P591285

Luminaire Tested: **CTN-CA8-480-727-U-T4-SSS-HM-EX180**

Issue Date: 1/19/2022

Test Information

Test Method: LM-79-08
Report Number: P591285
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-CA8-480-727-U-T4-SSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE, 180D FIELD INSTALLED SHIELD ON STREET SIDE
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26458 lumens
Efficiency: N/A
Efficacy: 55.0 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 2.08' x H: 1')
IES Classification: Type II - Short
BUG Rating: B4 - U0 - G3

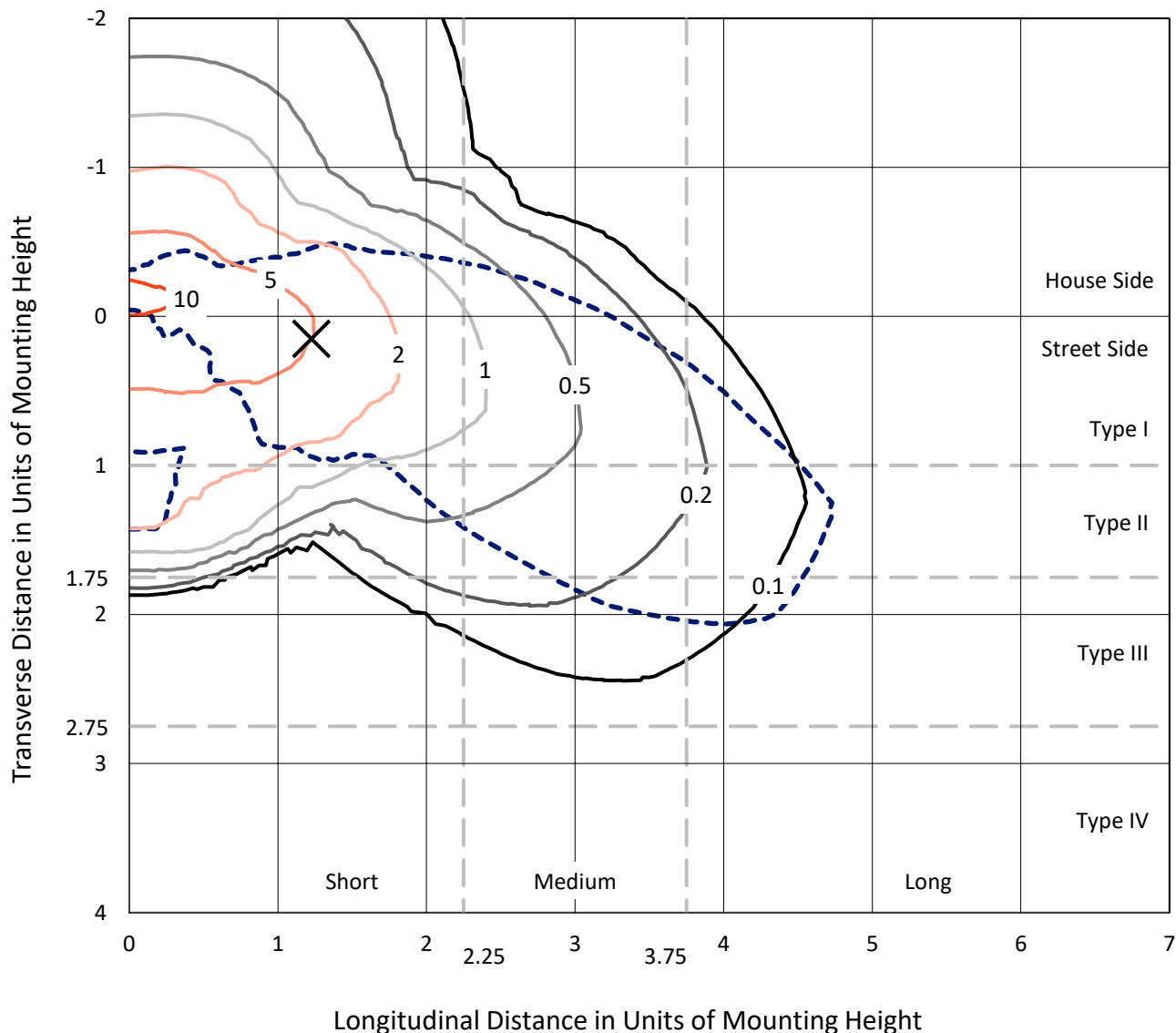
Input Watts (W): 480.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P591285
 CATALOG NUMBER: CTN-CA8-480-727-U-T4-SSS-HM-EX180

Iso-Footcandle Lines of Horizontal Illumination

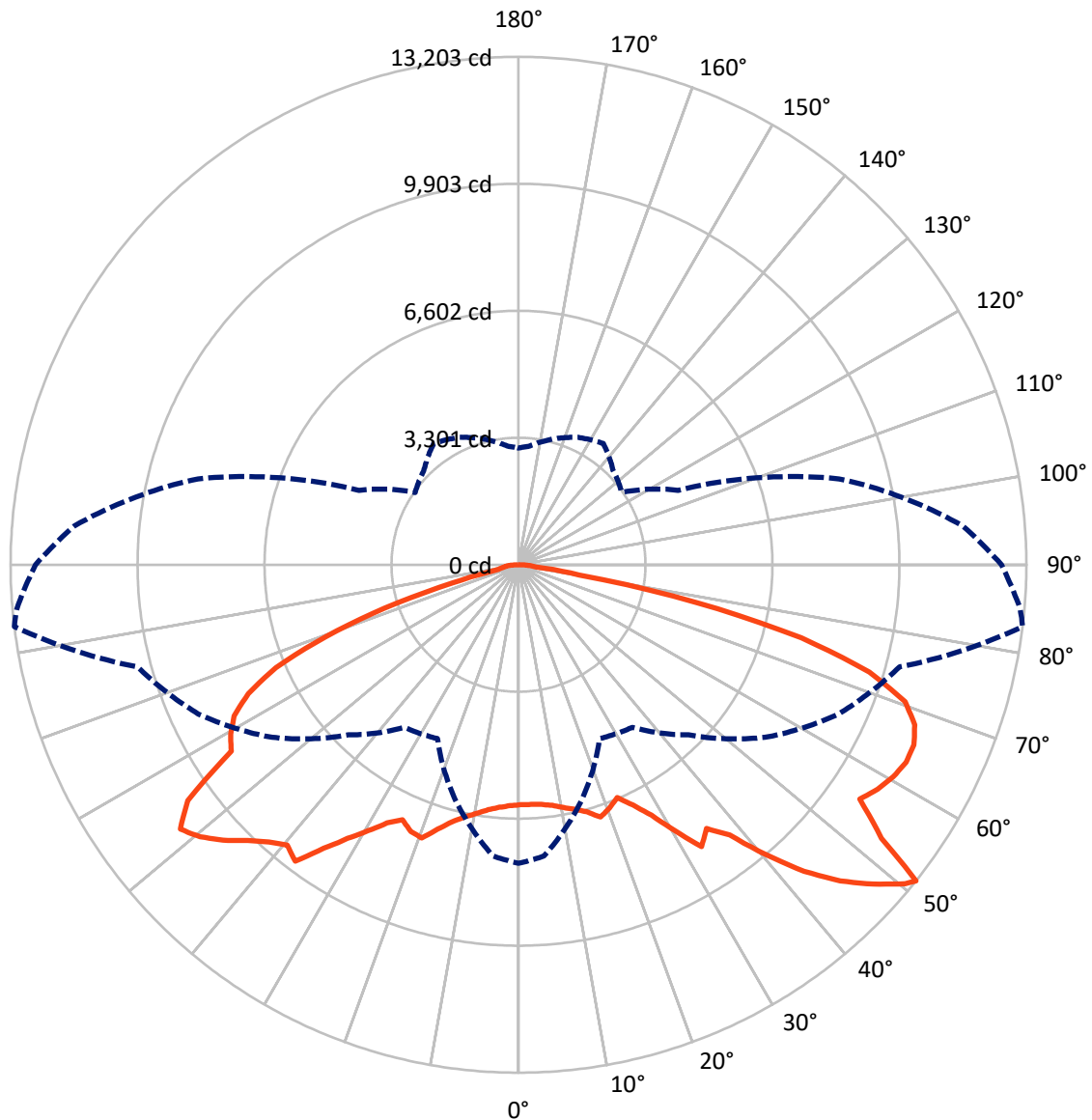
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.6 fc
 Type II - Short - N/A

REPORT NUMBER: P591285
CATALOG NUMBER: CTN-CA8-480-727-U-T4-SSS-HM-EX180

Luminous Intensity Polar Plot



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

REPORT NUMBER: P591285
 CATALOG NUMBER: CTN-CA8-480-727-U-T4-SSS-HM-EX180

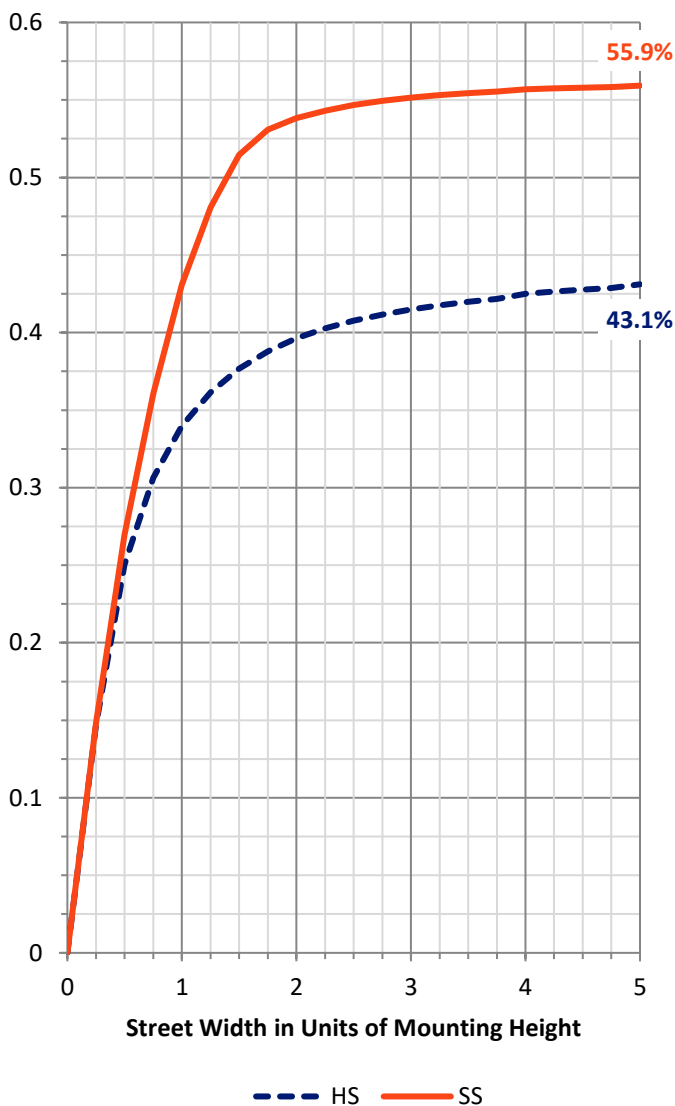
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11661.5	0.0	11661.5
	% Fixture	44.1	0.0	44.1
Street Side	Lumens	14796.5	0.0	14796.5
	% Fixture	55.9	0.0	55.9
Total	Lumens	26458.0	0.0	26458.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	609.2	2.3
10°-20°	1854.0	7.0
20°-30°	2880.0	10.9
30°-40°	3853.5	14.6
40°-50°	4999.5	18.9
50°-60°	5324.6	20.1
60°-70°	3709.2	14.0
70°-80°	2587.8	9.8
80°-90°	640.2	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°	26458.0	100.0
0°-180°	26458.0	100.0

Coefficient of Utilization



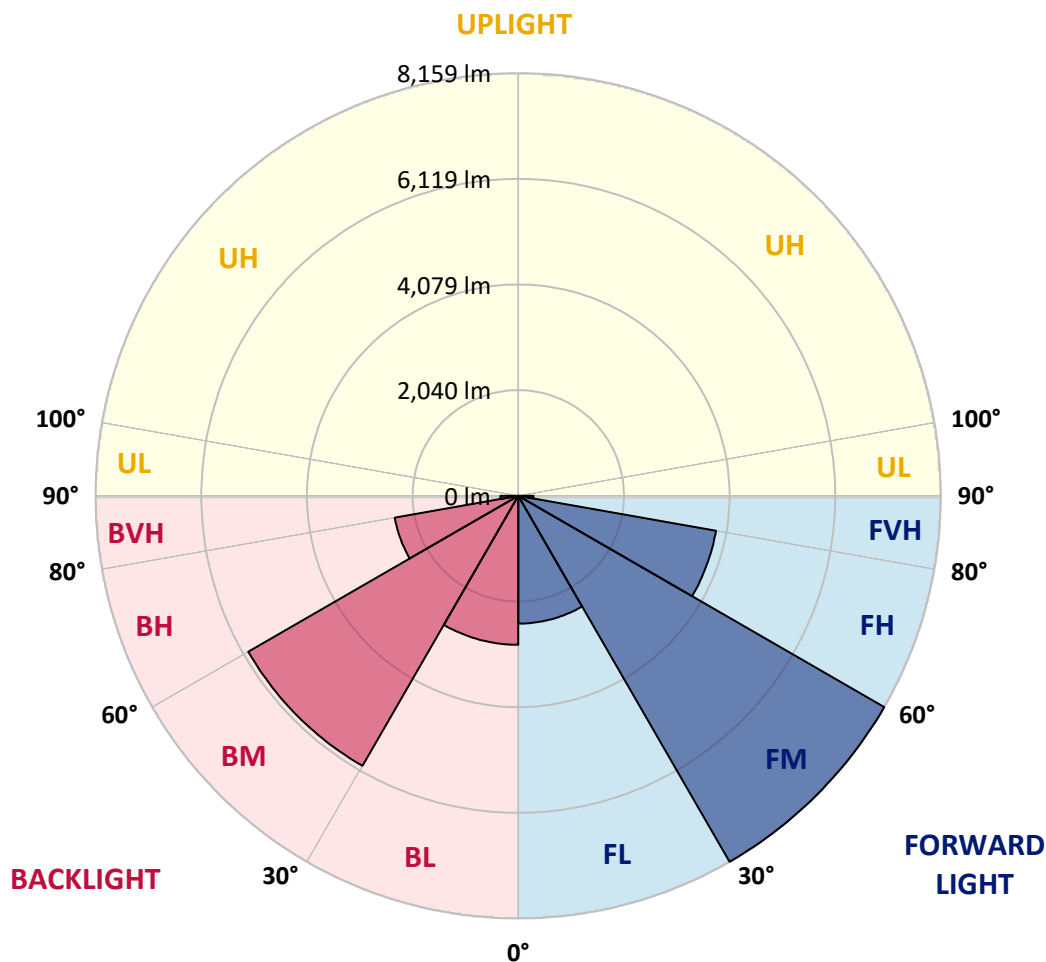
REPORT NUMBER: P591285
 CATALOG NUMBER: CTN-CA8-480-727-U-T4-SSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2467.0	9.3			
FM (30°-60°)	8158.9	30.8			
FH (60°-80°)	3876.7	14.7			G2/5000
FVH (80°-90°)	294.0	1.1			G3/500
BL (0°-30°)	2876.2	10.9	B4/5000		
BM (30°-60°)	6018.8	22.7	B4/8500		
BH (60°-80°)	2420.2	9.1	B3/2500		G3/2500
BVH (80°-90°)	346.3	1.3			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G3

Type II Short





REPORT NUMBER: P591285

CATALOG NUMBER: CTN-CA8-480-727-U-T4-SSS-HM-EX180

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	83°	85°
0°	6236.2	6236.2	6236.2	6236.2	6236.2	6236.2	6236.2	6236.2	6236.2	6236.2	6236.2
2.5°	6161.8	6119.1	6122.8	6180.4	6104.2	6154.4	6147.0	6236.2	6219.5	6238.1	6251.1
5°	6107.9	6074.4	6074.4	6150.7	6096.7	6150.7	6113.5	6191.6	6217.6	6258.5	6273.4
7.5°	6119.1	6083.7	6098.6	6165.5	6106.0	6161.8	6160.0	6234.4	6243.7	6316.2	6340.4
10°	6150.7	6111.6	6119.1	6173.0	6139.5	6236.2	6219.5	6321.8	6321.8	6418.5	6455.7
12.5°	6085.6	6059.5	6074.4	6147.0	6176.7	6277.1	6299.5	6403.6	6418.5	6522.6	6569.1
15°	6014.9	5977.7	6026.1	6130.2	6180.4	6325.5	6373.9	6533.8	6556.1	6664.0	6716.1
17.5°	5672.7	5648.5	5737.8	5821.5	5849.4	5990.7	6085.6	6351.5	6671.4	6896.5	6957.9
20°	4992.0	4988.2	4822.7	4787.4	5220.7	5737.8	5802.9	6029.8	6399.9	6751.4	6876.0
22.5°	4168.0	4279.6	4817.1	4988.2	4977.1	5181.7	6014.9	6228.8	6392.5	6571.0	6645.4
25°	4168.0	4158.7	4476.8	5213.3	5215.1	5302.6	5488.5	6559.8	6716.1	6920.7	6980.2
27.5°	4300.1	4309.4	4288.9	4826.4	5471.8	5553.6	5633.6	6187.9	7145.7	7372.6	7471.2
30°	4523.3	4538.1	4456.3	4458.2	5557.4	5802.9	5955.4	6173.0	7445.2	8027.3	8071.9
32.5°	4964.1	4958.5	4856.2	4724.1	4876.6	6046.5	6269.7	6552.4	6972.7	8734.1	8838.2
35°	5315.6	5291.4	5220.7	5129.6	4928.7	5977.7	6569.1	6959.7	7495.4	8419.7	8970.3
37.5°	5706.2	5670.8	5590.8	5479.2	5297.0	4171.7	6864.9	7424.7	8256.1	8912.6	8948.0
40°	6147.0	6107.9	5998.2	5834.5	5602.0	4274.0	6996.9	7999.4	9247.4	9907.7	9902.1
42.5°	6485.5	6446.4	6388.7	6215.8	4925.0	4714.8	6102.3	8806.6	10320.6	10893.4	10845.0
45°	6771.9	6738.4	6744.0	6561.7	4620.0	5256.1	6797.9	9228.8	11332.3	11722.9	11659.7
47.5°	6995.1	6943.0	6801.6	5520.2	4739.0	5629.9	7363.3	8049.6	12186.0	12407.4	12336.7
50°	7538.2	7450.7	6610.1	4900.8	5040.3	6087.4	7900.8	8879.1	11099.8	13030.4	12905.8
51°	7759.5	7601.4	6334.8	4986.4	5159.3	6253.0	7820.9	9180.4	10253.6	13203.4	13091.8
52.5°	7992.0	7679.5	5579.7	5116.6	5304.4	6481.7	6643.5	9643.6	10489.8	11815.9	12474.3
55°	6742.1	6864.9	5762.0	5592.7	5579.7	5602.0	6784.9	10333.6	10982.7	10759.5	10629.3
57.5°	3965.3	4037.8	5853.1	6262.3	4828.3	4448.9	7158.7	10854.3	11408.6	11006.9	10861.8
60°	1993.8	2086.8	2131.4	1943.6	2603.9	4058.3	6029.8	7867.4	11669.0	11192.8	11018.0
62.5°	87.4	145.1	57.7	63.2	106.0	1415.4	4430.3	8081.2	11888.4	11306.3	11075.7
65°	7.4	7.4	9.3	18.6	46.5	1486.1	4930.6	8377.0	11977.7	11295.1	10986.4
67.5°	1.9	1.9	3.7	13.0	33.5	1608.8	5518.3	8497.9	11981.4	11105.4	10727.9
70°	0.0	1.9	3.7	11.2	29.8	1683.2	5646.6	8473.7	11828.9	10659.1	10140.1
72.5°	0.0	0.0	1.9	9.3	26.0	1588.3	5497.8	8425.3	11308.2	9535.7	8799.2
75°	0.0	0.0	1.9	7.4	22.3	1616.2	5512.7	7882.2	9874.2	7592.1	6697.5
77.5°	0.0	0.0	1.9	7.4	20.5	1491.6	5047.8	6825.8	7804.1	4726.0	3747.7
80°	0.0	0.0	1.9	7.4	18.6	1279.6	4151.3	5328.6	4367.0	1603.2	1034.1
82.5°	0.0	0.0	1.9	7.4	14.9	866.7	2758.2	2663.4	879.7	459.4	412.9
85°	0.0	0.0	1.9	5.6	11.2	517.1	1381.9	362.7	340.4	292.0	264.1
87.5°	0.0	0.0	1.9	3.7	7.4	219.5	425.9	111.6	141.4	119.0	106.0
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: P591285

CATALOG NUMBER: CTN-CA8-480-727-U-T4-SSS-HM-EX180

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	6236.2	6236.2	6236.2	6236.2	6236.2	6236.2	6236.2	6236.2	6236.2	6236.2	6236.2
2.5°	6262.3	6262.3	6282.7	6351.5	6344.1	6399.9	6368.3	6437.1	6442.7	6429.7	6461.3
5°	6286.4	6308.8	6377.6	6450.1	6420.4	6502.2	6541.2	6632.4	6628.7	6617.5	6654.7
7.5°	6355.3	6401.8	6470.6	6558.0	6589.6	6656.6	6660.3	6784.9	6777.5	6771.9	6809.1
10°	6470.6	6531.9	6608.2	6740.3	6721.7	6818.4	6777.5	6868.6	6866.7	6863.0	6900.2
12.5°	6589.6	6678.9	6771.9	6900.2	6898.3	6902.1	6866.7	6913.2	6903.9	6877.9	6905.8
15°	6757.0	6876.0	7004.4	7097.4	7015.5	6998.8	6920.7	6892.8	6838.8	6764.4	6786.8
17.5°	7034.1	7151.3	7315.0	7365.2	7231.3	7155.0	6943.0	6788.6	6621.2	6507.8	6531.9
20°	7283.3	7501.0	7657.2	7653.5	7482.4	7281.5	6952.3	6691.9	6368.3	6148.8	6130.2
22.5°	6972.7	7339.1	8019.9	7939.9	7640.4	7355.9	6941.1	6537.5	6000.0	5659.7	5646.6
25°	7151.3	7158.7	7768.8	8099.8	7711.1	7324.3	6807.2	6267.8	5579.7	5226.3	5205.8
27.5°	7607.0	7566.1	7396.8	7928.7	7646.0	7162.5	6537.5	5808.4	5196.5	4889.7	4874.8
30°	8148.2	8021.7	7623.7	7099.2	7378.2	6848.1	6122.8	5337.9	4850.6	4571.6	4549.3
32.5°	8795.4	8529.5	7830.2	7008.1	6500.3	6373.9	5587.1	4965.9	4564.2	4274.0	4216.4
35°	9563.6	9165.6	8029.2	6853.7	5815.9	5670.8	5083.1	4631.1	4294.5	4000.6	3943.0
37.5°	9561.7	9976.5	8323.0	6641.7	5391.8	4882.2	4716.7	4407.9	4106.6	3751.4	3686.3
40°	9632.4	9645.4	8646.6	6435.2	4995.7	4476.8	4499.1	4298.2	3987.6	3597.0	3530.1
42.5°	10491.7	9859.3	9042.8	6158.1	4621.8	4177.3	4406.1	4259.2	3924.4	3524.5	3450.1
45°	11239.3	10510.3	8174.2	5854.9	4229.4	3944.8	4331.7	4168.0	3835.1	3437.1	3353.4
47.5°	11890.3	11027.3	8395.6	5324.9	3846.3	3755.1	4188.5	3993.2	3675.2	3305.0	3230.6
50°	12385.0	11455.1	8589.0	4612.5	3474.3	3565.4	3956.0	3757.0	3450.1	3150.7	3087.4
51°	12554.3	11592.7	8628.0	4580.9	3277.1	3476.1	3846.3	3652.8	3377.6	3091.1	3033.5
52.5°	12736.6	11771.3	8685.7	4651.6	2998.1	3329.2	3667.7	3498.5	3269.7	3024.2	2959.1
55°	10590.2	11060.8	8538.8	4502.8	2674.5	3037.2	3340.4	3264.1	3137.6	2920.0	2873.5
57.5°	10203.4	9359.0	7082.5	3812.8	2390.0	2689.4	3022.3	3072.5	2975.8	2754.5	2721.0
60°	10287.1	9273.4	6306.9	2843.8	2107.3	2378.8	2784.3	2828.9	2745.2	2577.8	2531.3
62.5°	10272.2	9054.0	5624.3	2003.1	1861.8	2217.0	2613.2	2631.8	2516.4	2376.9	2334.2
65°	10026.7	8549.9	4692.5	1515.8	1726.0	2127.7	2512.7	2522.0	2378.8	2200.3	2177.9
67.5°	9479.9	7752.0	3264.1	1331.7	1649.7	2058.9	2445.8	2404.8	2267.2	2079.4	2045.9
70°	8432.8	6316.2	1525.1	1225.7	1534.4	1932.4	2282.1	2233.7	2083.1	1908.3	1878.5
72.5°	6760.7	4389.4	723.5	1121.5	1413.5	1774.3	2081.2	2005.0	1880.4	1815.3	1798.5
75°	4424.7	2060.8	604.5	1009.9	1253.6	1582.8	1908.3	1880.4	1765.0	1634.8	1571.6
77.5°	1794.8	543.1	546.8	896.5	1125.2	1458.2	1724.1	1701.8	1549.3	1432.1	1406.1
80°	452.0	407.3	500.3	740.2	980.2	1270.3	1512.1	1448.9	1393.1	1266.6	1225.7
82.5°	344.1	327.3	392.4	572.8	805.3	1047.1	1290.8	1316.8	1223.8	1127.1	1106.6
85°	239.9	297.6	238.1	407.3	597.0	825.8	1082.5	1129.0	1065.7	956.0	881.6
87.5°	132.1	156.2	98.6	213.9	316.2	452.0	621.2	626.8	518.9	476.1	448.2
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)