

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: 769015_320MP

Luminaire Tested: **GSM-XX-320-MP-XX-1F-SG-XX-X**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 769015_320MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GSM-XX-320-MP-XX-1F-SG-XX-X
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-HORIZONTAL LAMP-TYPE I DISTRIBUTION
Light Source: 320 WATT PULSE-START CLEAR ED-28 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 30000 (1 lamp)
Luminaire Lumens: 19423.4 lumens
Efficiency: 64.7%
Efficacy: 55.5 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G4

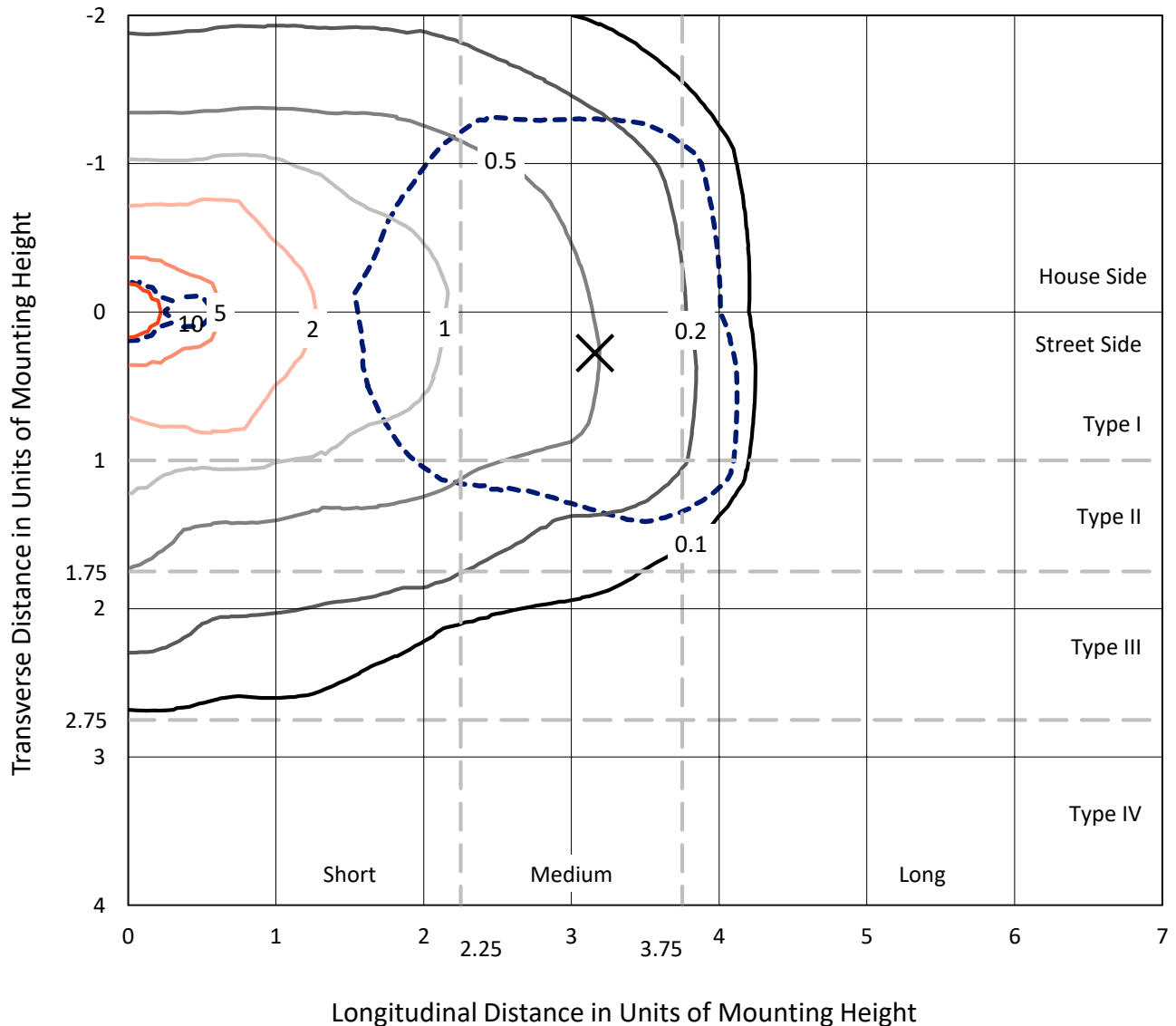
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

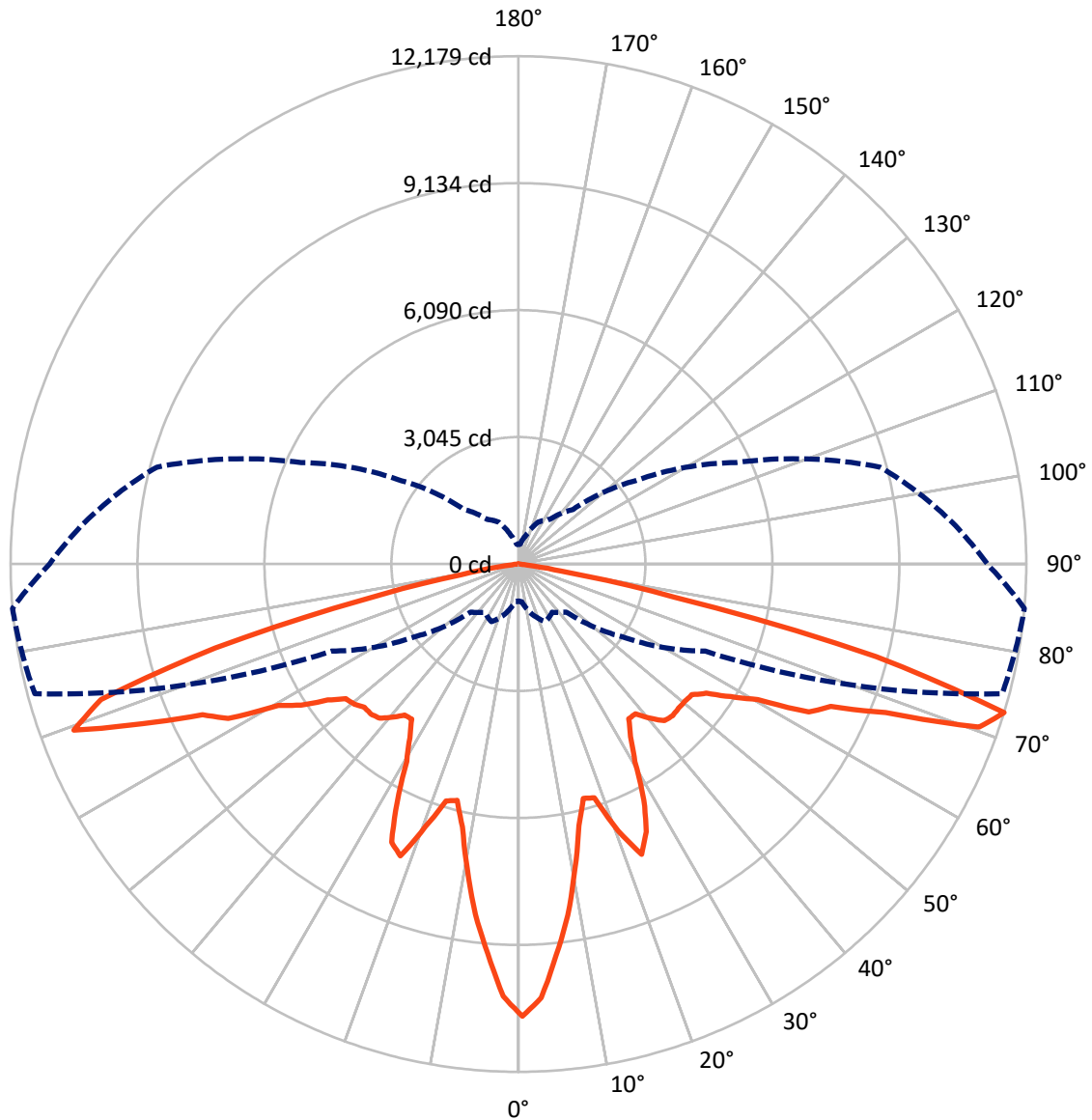
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 17.4 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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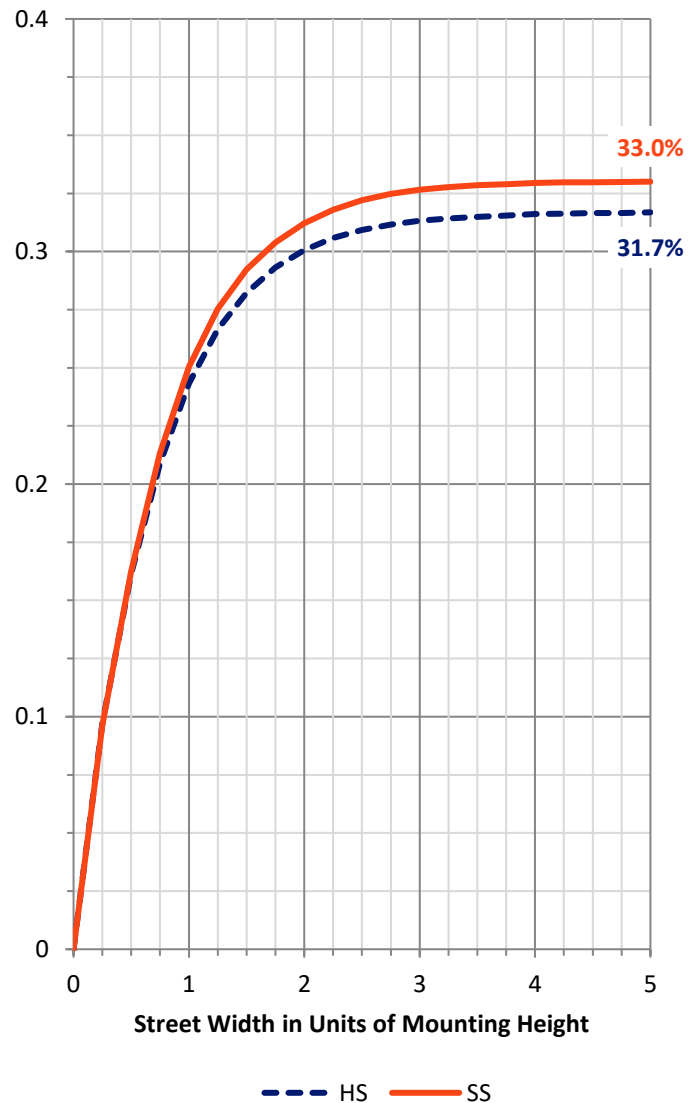
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9538.7	0.0	9538.7
	% Lamp	31.8	0.0	31.8
Street Side	Lumens	9884.7	0.0	9884.7
	% Lamp	32.9	0.0	32.9
Total	Lumens	19423.4	0.0	19423.4
	% Lamp	64.7	0.0	64.7

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	805.4	4.1	2.7
10°-20°	1509.2	7.8	5.0
20°-30°	1987.0	10.2	6.6
30°-40°	2133.6	11.0	7.1
40°-50°	2707.2	13.9	9.0
50°-60°	3100.1	16.0	10.3
60°-70°	4100.0	21.1	13.7
70°-80°	2962.0	15.2	9.9
80°-90°	118.9	0.6	0.4
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	19423.4	100.0	64.7
0°-180°	19423.4	100.0	64.7



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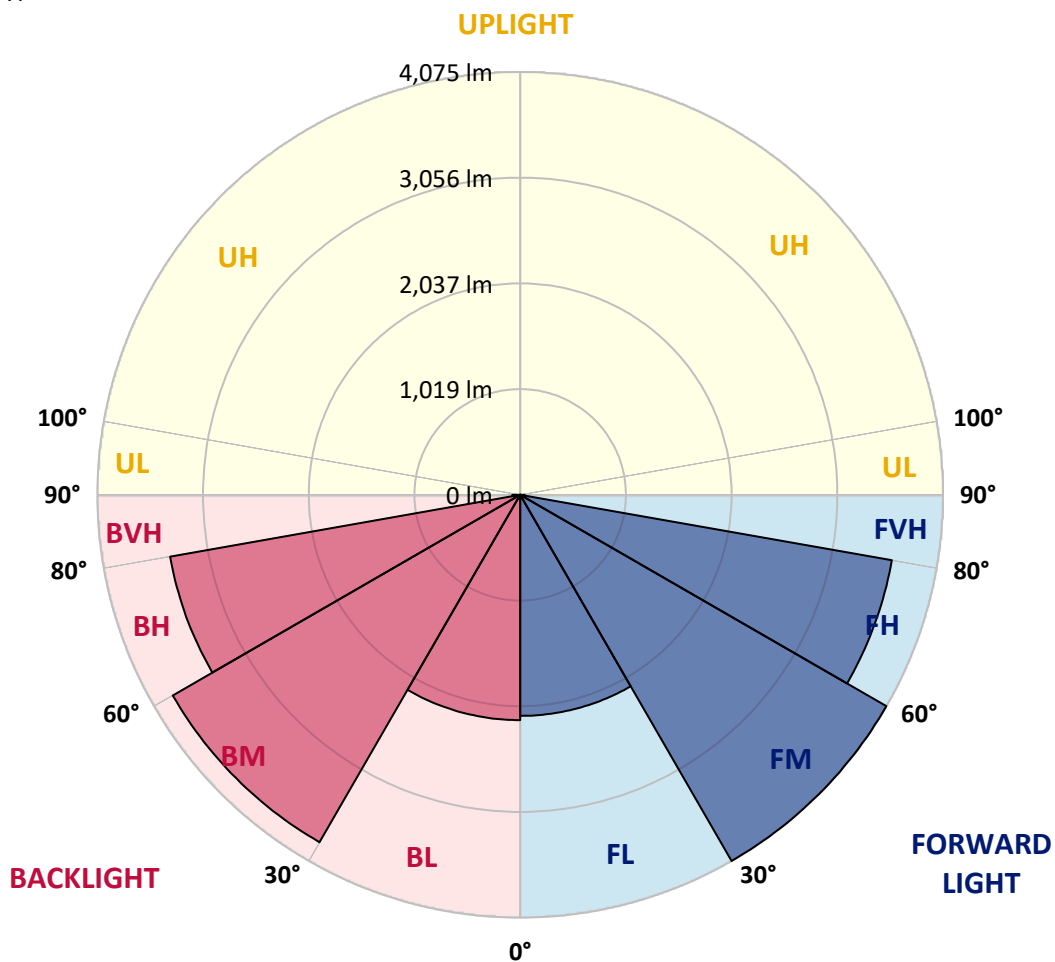
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2130.4	7.1			
FM	(30°-60°)	4074.6	13.6			
FH	(60°-80°)	3636.7	12.1			G2/5000
FVH	(80°-90°)	43.1	0.1			G1/100
BL	(0°-30°)	2171.2	7.2	B3/2500		
BM	(30°-60°)	3866.3	12.9	B3/5000		
BH	(60°-80°)	3425.4	11.4	B4/5000		G4/5000
BVH	(80°-90°)	75.9	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		10576.6	35.3			

BUG Rating: B4-U0-G4

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	10845.8	10845.8	10845.8	10845.8	10845.8	10845.8	10845.8	10845.8	10845.8	10845.8	10845.8
2.5°	10304.2	10304.2	10309.2	10327.5	10340.8	10373.3	10400.8	10414.2	10414.2	10419.2	10414.2
5°	8800.8	8800.8	8855.8	8934.2	9048.3	9163.3	9277.5	9360.0	9415.0	9429.2	9429.2
7.5°	7196.7	7220.0	7288.3	7430.8	7614.2	7825.0	8035.8	8237.5	8420.8	8507.5	8525.8
10°	6124.2	6128.3	6170.0	6256.7	6445.0	6733.3	7031.7	7205.8	7325.0	7435.0	7467.5
12.5°	5345.0	5330.8	5358.3	5413.3	5574.2	5803.3	6009.2	6225.0	6362.5	6440.0	6476.7
15°	4657.5	4648.3	4735.0	4872.5	5028.3	5079.2	5211.7	5418.3	5638.3	5830.8	5899.2
17.5°	4070.8	4080.0	4254.2	4469.2	4575.0	4556.7	4689.2	5074.2	5583.3	5895.0	5986.7
20°	3649.2	3653.3	3805.0	4043.3	4148.3	4139.2	4318.3	4923.3	6201.7	6834.2	6848.3
22.5°	3254.2	3268.3	3437.5	3667.5	3827.5	3873.3	4070.8	4822.5	6412.5	7563.3	7760.8
25°	2951.7	2975.0	3135.0	3396.7	3575.8	3690.0	3970.0	4740.0	6082.5	7114.2	7375.8
27.5°	2731.7	2745.8	2997.5	3245.0	3378.3	3548.3	3942.5	4762.5	5656.7	6412.5	6545.8
30°	2511.7	2562.5	2951.7	3066.7	3240.8	3309.2	3598.3	4336.7	4932.5	5500.8	5565.0
32.5°	2374.2	2443.3	2901.7	2883.3	3034.2	3061.7	3235.8	3759.2	4432.5	4936.7	4996.7
35°	2273.3	2351.7	2795.8	2850.8	3235.8	3121.7	3199.2	3630.8	4171.7	4556.7	4584.2
37.5°	2172.5	2245.8	2736.7	2869.2	3492.5	3309.2	3286.7	3722.5	4212.5	4556.7	4556.7
40°	2117.5	2241.7	2539.2	2786.7	3708.3	3662.5	3520.8	3915.0	4533.3	4863.3	4831.7
42.5°	2126.7	2296.7	2296.7	2608.3	3754.2	4010.8	3845.8	4135.0	4932.5	5138.3	5055.8
45°	2200.0	2319.2	2145.0	2383.3	3585.0	4208.3	4089.2	4281.7	5019.2	5189.2	5143.3
47.5°	2273.3	2337.5	2071.7	2227.5	3167.5	4258.3	4098.3	4194.2	4859.2	5165.8	5138.3
50°	2374.2	2355.8	2016.7	2131.7	2786.7	4052.5	3924.2	4139.2	4735.0	5175.0	5216.7
52.5°	2630.8	2452.5	1957.5	2067.5	2635.8	3653.3	4070.8	4212.5	4767.5	5207.5	5257.5
55°	2860.0	2525.8	1875.0	2012.5	2553.3	3305.0	4386.7	4368.3	5000.8	5468.3	5569.2
57.5°	2658.3	2397.5	1783.3	1970.8	2489.2	3121.7	4542.5	4615.8	5711.7	6000.0	6128.3
60°	2493.3	2241.7	1737.5	1939.2	2443.3	2993.3	4515.0	5198.3	6485.8	6595.8	6637.5
62.5°	2337.5	2150.0	1682.5	1897.5	2315.0	2901.7	4588.3	5853.3	7526.7	7815.8	7838.3
65°	2117.5	2071.7	1613.3	1851.7	2227.5	2865.0	4579.2	6476.7	7875.0	8232.5	8228.3
67.5°	1842.5	1879.2	1563.3	1838.3	2150.0	2869.2	4593.3	6715.0	8723.3	9502.5	9625.8
70°	1375.0	1420.8	1420.8	1801.7	2053.3	2731.7	4258.3	6146.7	10694.2	11720.8	11689.2
72.5°	889.2	907.5	1237.5	1530.8	1411.7	1627.5	3043.3	4941.7	12010.0	12179.2	11244.2
75°	421.7	449.2	674.2	600.8	476.7	692.5	2676.7	4730.8	9671.7	8865.0	7724.2
77.5°	119.2	133.3	234.2	192.5	183.3	353.3	1934.2	3195.0	4364.2	3832.5	3530.0
80°	36.7	36.7	69.2	78.3	87.5	174.2	692.5	848.3	1050.0	1035.8	1136.7
82.5°	0.0	0.0	5.0	27.5	32.5	50.8	105.8	142.5	170.0	220.0	265.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	14.2	23.3	32.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	10845.8	10845.8	10845.8	10845.8	10845.8	10845.8	10845.8	10845.8	10845.8	10845.8
2.5°	10373.3	10382.5	10382.5	10400.8	10400.8	10469.2	10455.8	10520.0	10524.2	10524.2
5°	9369.2	9369.2	9346.7	9323.3	9286.7	9319.2	9282.5	9337.5	9360.0	9360.0
7.5°	8466.7	8388.3	8287.5	8177.5	8045.0	7975.8	7875.0	7880.0	7875.0	7893.3
10°	7421.7	7334.2	7210.8	7026.7	6839.2	6724.2	6605.0	6577.5	6591.7	6600.8
12.5°	6445.0	6357.5	6243.3	6110.0	5895.0	5743.3	5620.0	5615.0	5638.3	5620.0
15°	5853.3	5665.8	5523.3	5367.5	5198.3	5055.8	4927.5	4914.2	4905.0	4905.0
17.5°	5940.8	5587.5	5147.5	4822.5	4670.8	4620.8	4428.3	4368.3	4318.3	4300.0
20°	6683.3	6023.3	5138.3	4515.0	4290.8	4203.3	4020.0	3942.5	3836.7	3805.0
22.5°	7550.0	6412.5	5134.2	4322.5	3979.2	3845.8	3671.7	3561.7	3419.2	3391.7
25°	7334.2	6330.0	4996.7	4139.2	3754.2	3594.2	3446.7	3254.2	3057.5	3034.2
27.5°	6408.3	5785.0	4735.0	3924.2	3520.8	3415.0	3286.7	3061.7	2800.8	2759.2
30°	5436.7	5042.5	4327.5	3585.0	3295.8	3259.2	3140.0	2860.0	2621.7	2575.8
32.5°	4914.2	4602.5	3960.8	3309.2	3020.8	3020.8	2887.5	2713.3	2498.3	2447.5
35°	4515.0	4290.8	3759.2	3213.3	3030.0	3006.7	2736.7	2525.8	2360.8	2328.3
37.5°	4533.3	4245.0	3699.2	3240.8	3153.3	3089.2	2635.8	2379.2	2227.5	2200.0
40°	4762.5	4469.2	3814.2	3369.2	3382.5	3167.5	2520.8	2241.7	2122.5	2099.2
42.5°	4973.3	4661.7	3979.2	3575.8	3640.0	3217.5	2388.3	2113.3	2007.5	1998.3
45°	5046.7	4707.5	4093.3	3777.5	3800.0	3162.5	2260.0	1985.0	1875.0	1879.2
47.5°	5042.5	4698.3	4107.5	3937.5	3887.5	3043.3	2140.8	1856.7	1755.8	1732.5
50°	5175.0	4740.0	4052.5	3864.2	3855.0	2865.0	2030.8	1732.5	1627.5	1604.2
52.5°	5248.3	4799.2	4171.7	3896.7	3653.3	2667.5	1925.0	1613.3	1499.2	1485.0
55°	5615.0	4982.5	4327.5	4043.3	3446.7	2507.5	1851.7	1517.5	1411.7	1402.5
57.5°	6210.8	5413.3	4520.0	4190.0	3263.3	2379.2	1774.2	1430.0	1343.3	1329.2
60°	6683.3	5876.7	4936.7	4304.2	3125.8	2278.3	1719.2	1375.0	1274.2	1274.2
62.5°	7884.2	6852.5	5528.3	4565.8	3043.3	2154.2	1668.3	1343.3	1173.3	1191.7
65°	8393.3	7499.2	5990.8	4744.2	3015.8	2104.2	1600.0	1320.0	1068.3	1054.2
67.5°	9790.8	8645.0	6591.7	4795.0	2956.7	1994.2	1485.0	1233.3	907.5	852.5
70°	11381.7	9781.7	6861.7	4689.2	2855.8	1870.0	1343.3	1031.7	724.2	669.2
72.5°	10524.2	8980.0	5752.5	3525.0	1851.7	1306.7	1105.0	715.0	476.7	467.5
75°	7545.0	7220.0	4831.7	2901.7	1045.0	454.2	403.3	399.2	320.8	330.0
77.5°	3818.3	4281.7	3305.0	2177.5	692.5	192.5	119.2	133.3	201.7	210.8
80°	1393.3	1774.2	1595.0	1182.5	408.3	124.2	64.2	45.8	60.0	73.3
82.5°	330.0	417.5	403.3	335.0	124.2	32.5	18.3	5.0	5.0	9.2
85°	27.5	32.5	18.3	5.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)