

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: P299842

Luminaire Tested: **GLNA-AF-05-LED-E1-SL3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299842
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-SL3
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29650 lumens
Efficiency: N/A
Efficacy: 106.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 279
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

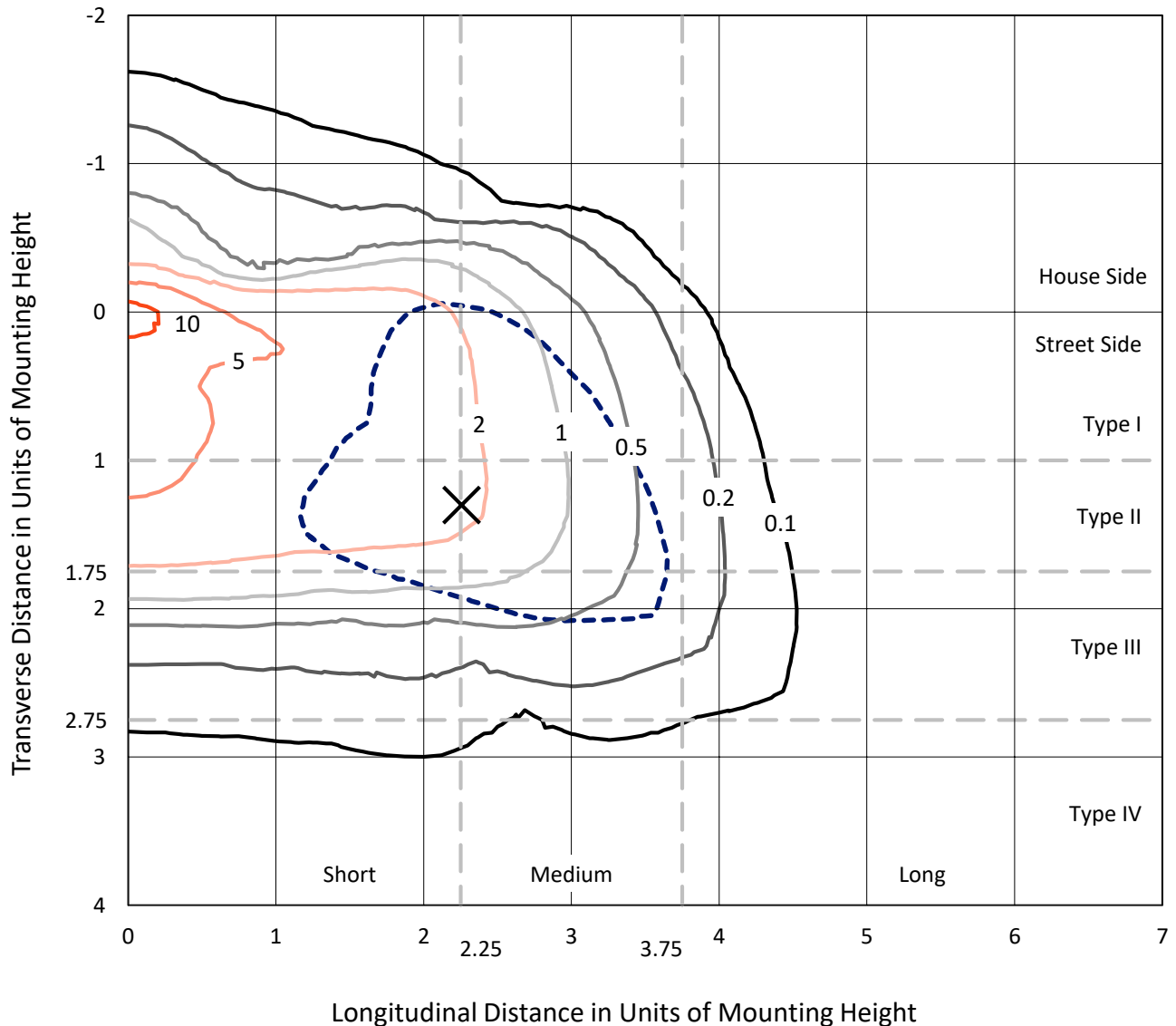


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

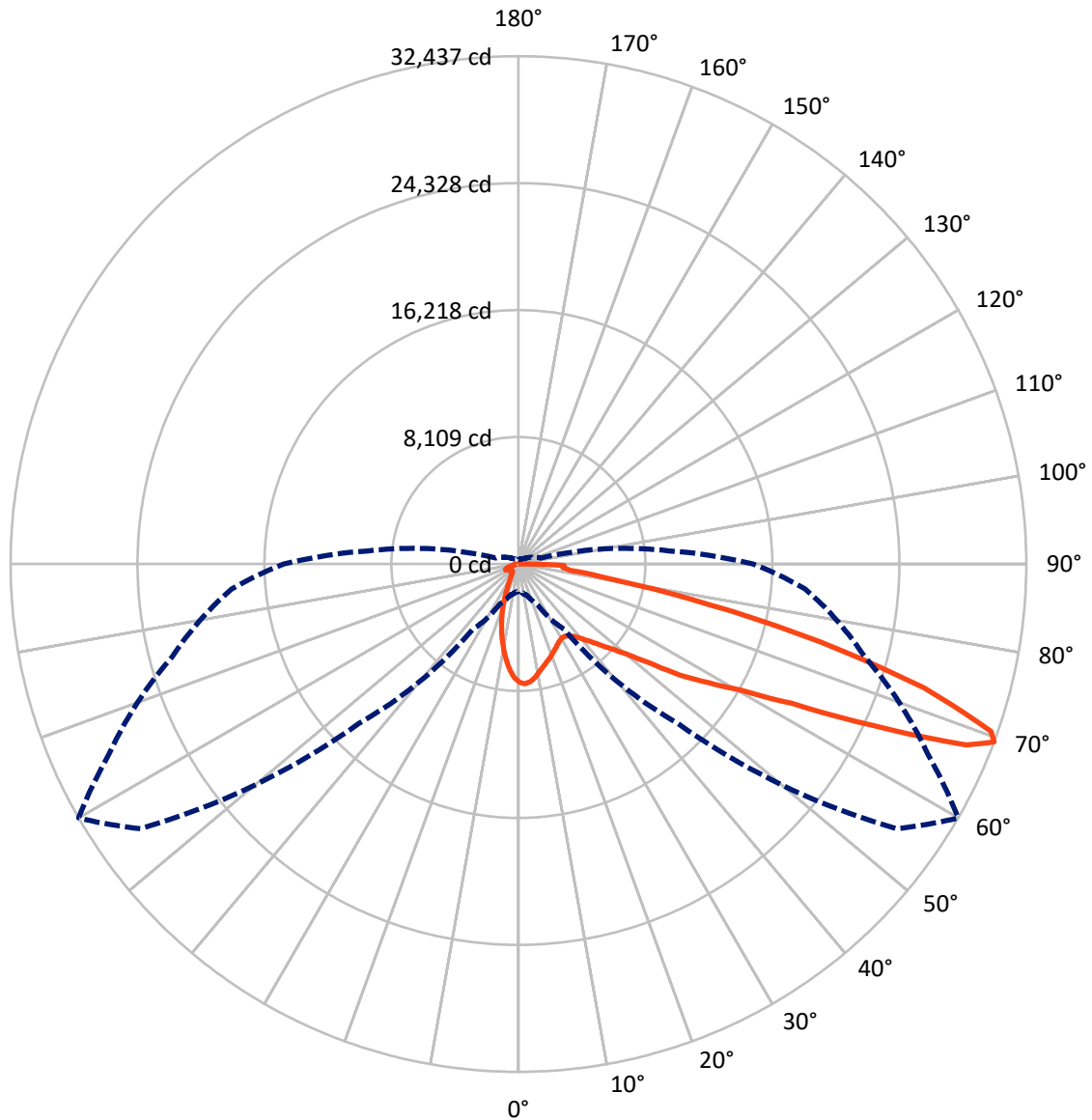


Based on 25 foot mounting height. Maximum calculated value = 12.1 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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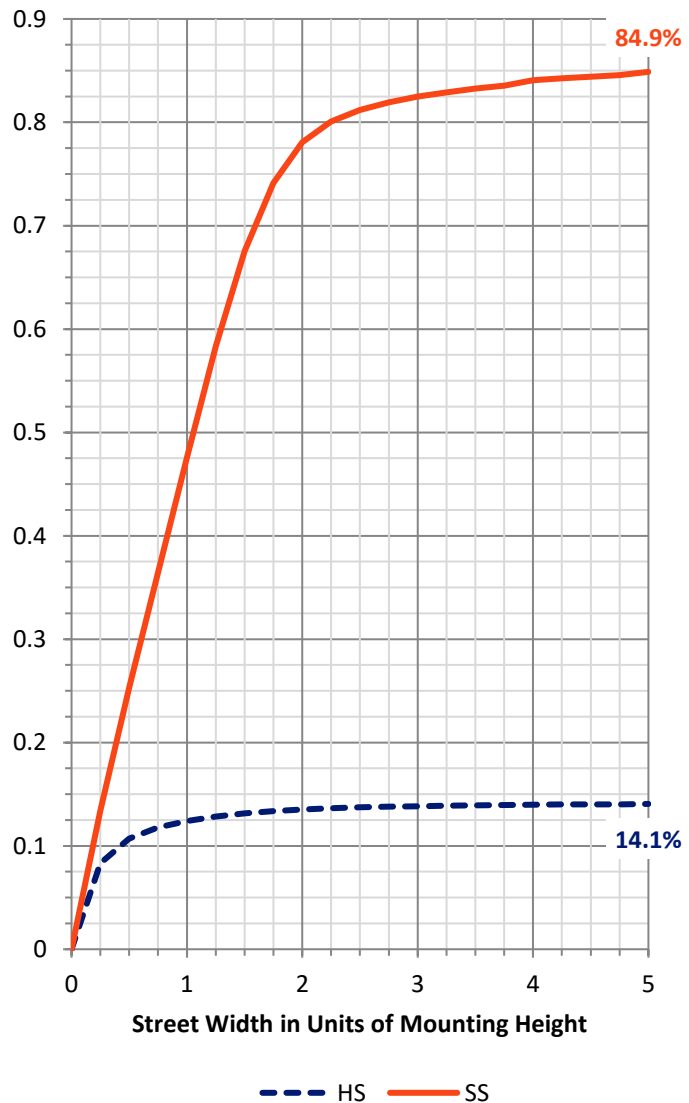
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4218.3	0.0	4218.3
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	25431.7	0.0	25431.7
	% Fixture	85.8	0.0	85.8
Total	Lumens	29650.0	0.0	29650.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	638.8	2.2
10°-20°	1361.1	4.6
20°-30°	1734.2	5.8
30°-40°	2384.1	8.0
40°-50°	3868.5	13.0
50°-60°	6204.0	20.9
60°-70°	8257.1	27.8
70°-80°	4458.2	15.0
80°-90°	743.9	2.5
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°	29650.0	100.0
0°-180°	29650.0	100.0

Coefficient of Utilization



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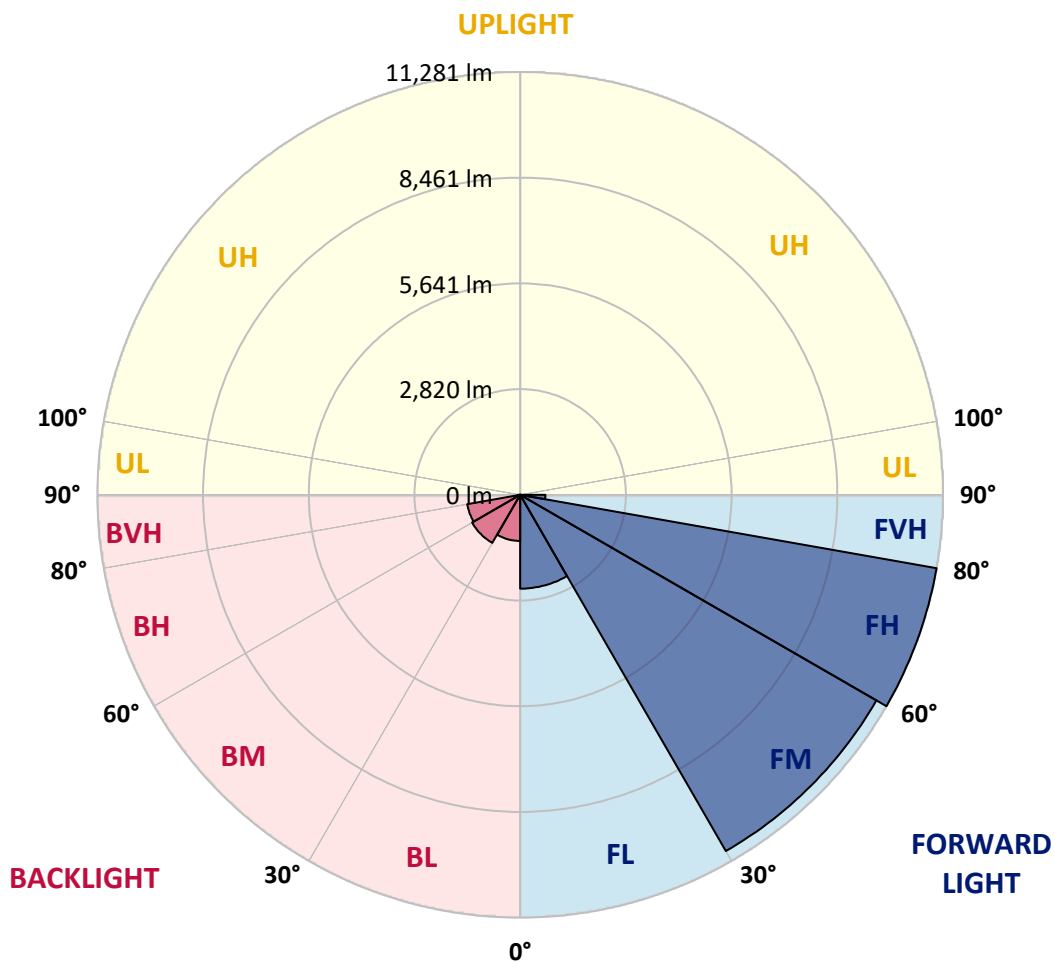
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2503.5	8.4			
FM (30°-60°)	10974.7	37.0			
FH (60°-80°)	11281.2	38.0			G4/12000
FVH (80°-90°)	672.3	2.3			G4/750
BL (0°-30°)	1230.6	4.2	B3/2500		
BM (30°-60°)	1482.0	5.0	B2/2500		
BH (60°-80°)	1434.1	4.8	B3/2500		G3/2500
BVH (80°-90°)	71.6	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	7555.3	7555.3	7555.3	7555.3	7555.3	7555.3	7555.3	7555.3	7555.3	7555.3	7555.3
2.5°	7710.0	7727.1	7720.0	7715.7	7728.6	7708.5	7667.0	7654.1	7634.0	7586.8	7506.6
5°	7420.6	7472.2	7469.3	7508.0	7572.5	7589.6	7571.0	7573.9	7536.6	7477.9	7344.7
7.5°	6920.8	6942.3	6953.7	7038.2	7155.7	7250.2	7330.4	7356.2	7339.0	7288.9	7117.0
10°	6405.1	6422.3	6449.5	6548.4	6697.3	6827.7	6979.5	7066.9	7104.1	7095.5	6903.6
12.5°	5962.6	5979.8	6015.6	6127.3	6304.9	6465.3	6685.9	6794.7	6883.5	6936.5	6730.3
15°	5565.8	5603.1	5637.4	5766.4	5965.4	6176.0	6425.2	6562.7	6700.2	6819.1	6577.0
17.5°	5256.5	5293.7	5313.8	5431.2	5643.2	5901.0	6193.2	6355.0	6526.9	6721.7	6425.2
20°	5077.4	5094.6	5086.0	5151.9	5342.4	5616.0	5962.6	6150.2	6357.9	6630.0	6273.4
22.5°	5027.3	5028.7	4997.2	4990.1	5113.2	5343.8	5716.2	5944.0	6198.9	6569.9	6143.0
25°	5149.0	5144.7	5058.8	4988.6	5001.5	5136.1	5478.5	5743.4	6065.7	6557.0	6042.8
27.5°	5419.7	5432.6	5305.2	5173.4	5043.1	5038.8	5298.0	5577.3	5956.8	6615.7	5999.8
30°	5799.3	5820.8	5684.7	5517.1	5272.2	5070.3	5227.8	5478.5	5889.5	6737.4	5992.7
32.5°	6214.7	6237.6	6134.4	5958.3	5637.4	5265.1	5276.5	5487.1	5886.7	6907.9	6041.3
35°	6657.2	6683.0	6630.0	6481.1	6124.4	5624.6	5462.7	5626.0	5979.8	7168.6	6171.7
37.5°	7151.4	7191.5	7205.8	7064.0	6683.0	6098.6	5767.8	5889.5	6190.3	7530.9	6410.9
40°	7863.2	7919.1	7914.8	7711.4	7323.2	6738.9	6239.0	6270.5	6518.3	8015.0	6793.3
42.5°	9226.7	9238.2	8881.6	8439.0	8027.9	7412.0	6794.7	6768.9	6970.9	8628.0	7356.2
45°	10961.2	10914.0	10120.5	9265.4	8764.1	8185.5	7518.0	7392.0	7545.2	9375.7	8060.9
47.5°	12400.7	12291.8	11289.2	10109.0	9543.3	9026.2	8367.4	8146.8	8231.3	10223.6	8971.8
50°	12900.5	12818.9	11988.2	10810.8	10280.9	10051.7	9412.9	9100.7	9123.6	11234.8	10038.8
52.5°	12793.1	12781.6	12227.4	11273.5	10971.2	11128.8	10893.9	10471.4	10247.9	12357.7	11190.4
55°	12539.6	12563.9	12363.4	11812.0	11760.4	12168.6	12828.9	12516.7	11822.0	13490.6	12380.6
57.5°	11658.7	11721.8	12162.9	12489.5	13030.9	13638.1	14387.2	14298.4	13516.4	14715.2	13795.7
60°	9392.9	9539.0	10722.0	12357.7	14338.5	16237.7	16572.9	16366.6	15263.8	16234.9	15664.8
62.5°	6581.3	6733.1	8139.6	10699.1	14123.7	19173.9	20480.1	19590.7	17773.1	18473.5	18083.9
65°	3523.4	3596.4	4670.7	7423.5	11923.7	19779.8	26190.6	24837.1	21746.3	21233.5	20153.6
67.5°	1943.6	1983.7	2394.8	3748.3	7636.9	17417.9	29828.6	30851.3	26712.0	23071.1	19776.9
69°	1757.4	1794.6	2063.9	2838.8	5110.4	14401.6	29473.4	32436.8	28889.0	22889.2	18384.7
70°	1718.7	1753.1	1995.2	2616.8	4136.4	11870.7	28283.2	32031.5	29407.5	22237.5	17170.1
72.5°	1546.9	1584.1	1819.0	2350.4	3534.9	5918.2	22403.7	27082.9	26699.1	19281.3	13023.7
75°	1442.3	1476.7	1874.9	2301.7	3384.5	3745.4	14769.6	19960.2	19626.5	13487.8	7022.5
77.5°	617.3	614.4	869.4	1947.9	3434.6	3626.5	7936.3	12469.4	11376.6	5764.9	2016.6
80°	412.5	405.3	412.5	572.9	3149.6	3646.6	4157.9	6329.2	4780.9	1469.5	994.0
82.5°	355.2	349.5	362.4	349.5	1107.2	4162.2	3534.9	3365.9	2273.0	835.0	492.7
85°	239.2	229.2	312.2	313.7	522.8	3698.1	3981.7	2843.1	1839.0	495.6	243.5
87.5°	114.6	111.7	181.9	222.0	306.5	1502.5	4467.3	2913.3	1854.8	253.5	116.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	7555.3	7555.3	7555.3	7555.3	7555.3	7555.3	7555.3	7555.3	7555.3	7555.3	7555.3
2.5°	7482.2	7423.5	7366.2	7297.5	7225.8	7145.6	7105.5	7065.4	7055.4	7043.9	7003.8
5°	7276.0	7192.9	7049.7	6892.1	6726.0	6564.1	6441.0	6363.6	6304.9	6274.8	6221.8
7.5°	7009.6	6887.8	6637.2	6365.0	6085.7	5830.8	5610.2	5471.3	5339.5	5277.9	5207.8
10°	6756.1	6574.2	6184.6	5783.5	5382.5	4997.2	4634.9	4378.5	4150.7	4023.3	3933.0
12.5°	6538.3	6289.1	5749.2	5206.3	4656.3	4107.8	3564.9	3138.1	2781.5	2593.9	2497.9
15°	6326.4	6025.6	5335.2	4646.3	3940.2	3194.0	2480.7	1996.6	1701.5	1584.1	1544.0
17.5°	6134.4	5749.2	4919.9	4082.0	3201.1	2298.8	1667.2	1400.8	1287.6	1248.9	1236.1
20°	5926.8	5469.9	4488.8	3491.9	2430.6	1607.0	1301.9	1184.5	1138.7	1127.2	1121.5
22.5°	5726.2	5194.9	4076.3	2860.3	1745.9	1240.4	1118.6	1069.9	1062.8	1072.8	1072.8
25°	5555.8	4948.5	3630.8	2200.0	1281.9	1044.1	1001.2	989.7	1016.9	1054.2	1061.3
27.5°	5428.3	4746.6	3156.7	1624.2	1021.2	908.1	906.6	925.3	992.6	1064.2	1078.5
30°	5341.0	4554.6	2649.7	1171.6	856.5	799.2	822.1	862.2	961.1	1062.8	1090.0
32.5°	5296.6	4412.8	2121.2	906.6	733.3	701.8	740.5	789.2	886.6	981.1	1016.9
35°	5330.9	4308.3	1622.8	756.2	647.4	623.0	663.1	710.4	767.7	807.8	835.0
37.5°	5459.8	4266.8	1224.6	677.5	588.7	565.7	597.3	624.5	647.4	658.8	671.7
40°	5737.7	4311.2	981.1	637.4	555.7	527.1	540.0	550.0	564.3	575.8	581.5
42.5°	6147.3	4444.4	879.4	621.6	538.5	497.0	494.1	498.4	517.1	538.5	542.8
45°	6720.2	4679.3	872.3	631.6	529.9	472.7	459.8	465.5	494.1	527.1	532.8
47.5°	7452.1	5037.3	929.5	661.7	537.1	459.8	438.3	445.4	481.2	525.6	532.8
50°	8338.7	5537.2	1025.5	706.1	568.6	462.6	431.1	435.4	472.7	521.3	528.5
52.5°	9385.7	6246.2	1130.1	749.1	601.6	481.2	436.8	426.8	461.2	504.2	512.8
55°	10550.2	7155.7	1237.5	787.8	618.7	504.2	448.3	415.4	439.7	475.5	482.7
57.5°	11979.6	8427.5	1423.7	825.0	630.2	519.9	459.8	403.9	412.5	438.3	444.0
60°	13914.6	10226.5	1751.7	886.6	656.0	525.6	458.3	393.9	385.3	399.6	402.5
62.5°	16233.4	12180.1	2025.2	963.9	699.0	529.9	449.7	386.7	362.4	362.4	365.2
65°	17609.9	12702.9	1873.4	1028.4	734.8	525.6	439.7	379.6	345.2	329.4	330.9
67.5°	16442.6	11171.8	1605.6	1041.3	733.3	505.6	424.0	366.7	328.0	303.6	302.2
69°	14980.2	9639.2	1485.3	1006.9	699.0	479.8	403.9	352.3	315.1	289.3	287.9
70°	13801.4	8704.0	1406.5	969.7	661.7	461.2	388.1	339.4	305.1	280.7	277.9
72.5°	10034.5	5703.3	1201.7	833.6	545.7	386.7	335.2	297.9	272.1	257.8	254.9
75°	5014.4	2719.9	975.4	676.0	418.2	309.4	275.0	249.2	236.3	233.5	232.0
77.5°	1647.1	1246.1	697.5	504.2	310.8	242.1	222.0	203.4	200.5	209.1	206.2
80°	905.2	724.7	442.6	333.7	212.0	177.6	174.7	164.7	169.0	183.3	180.5
82.5°	461.2	376.7	273.6	200.5	143.2	127.5	138.9	133.2	138.9	151.8	150.4
85°	227.7	206.2	173.3	121.7	94.5	81.6	98.8	103.1	106.0	116.0	116.0
87.5°	131.8	121.7	91.7	57.3	47.3	43.0	57.3	55.9	65.9	71.6	70.2
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)