

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: P299122

Luminaire Tested: **GLNA-AF-05-LED-E1-SL2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299122
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
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-SL2
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29043.7 lumens
Efficiency: N/A
Efficacy: 104.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-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

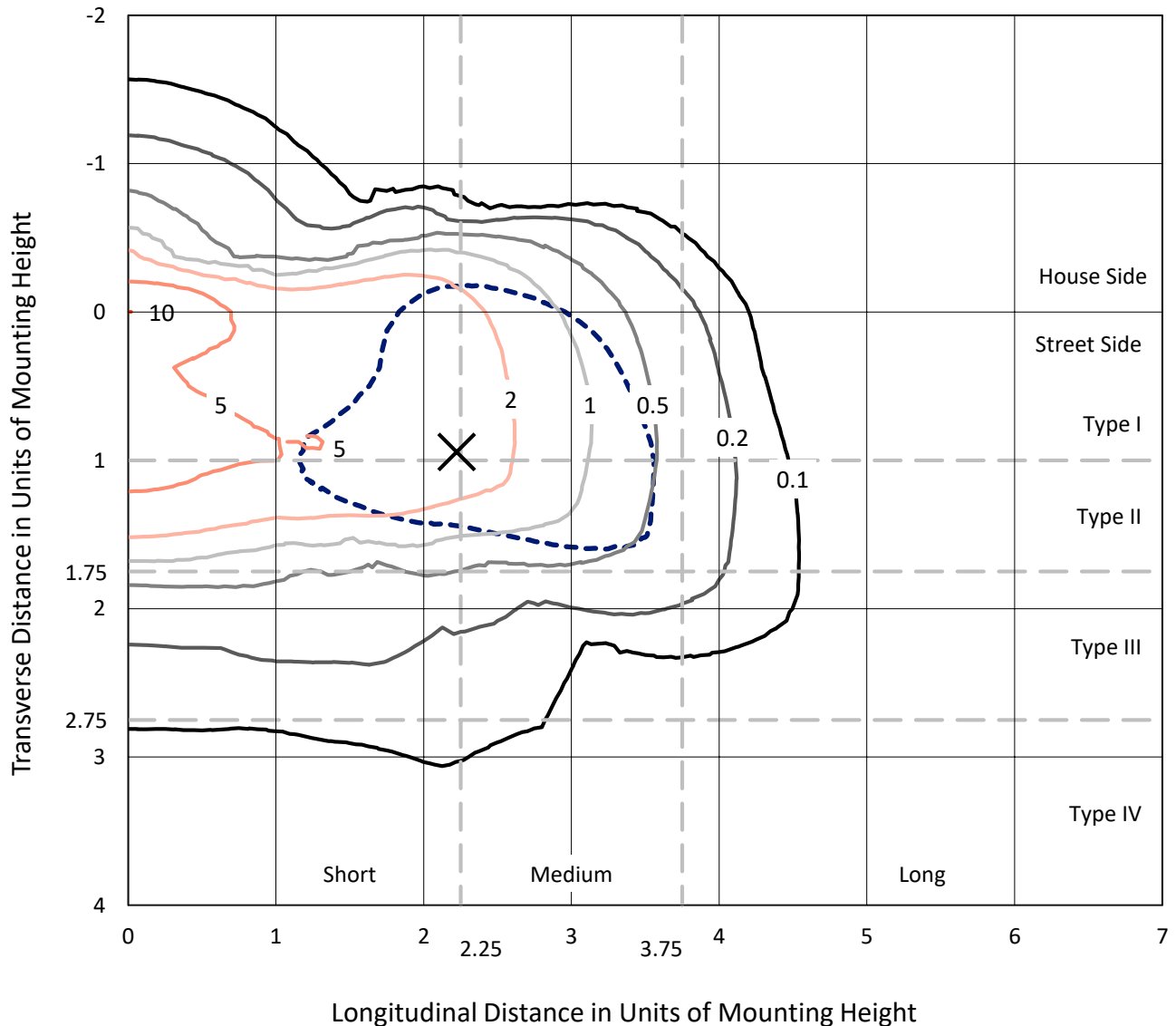


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

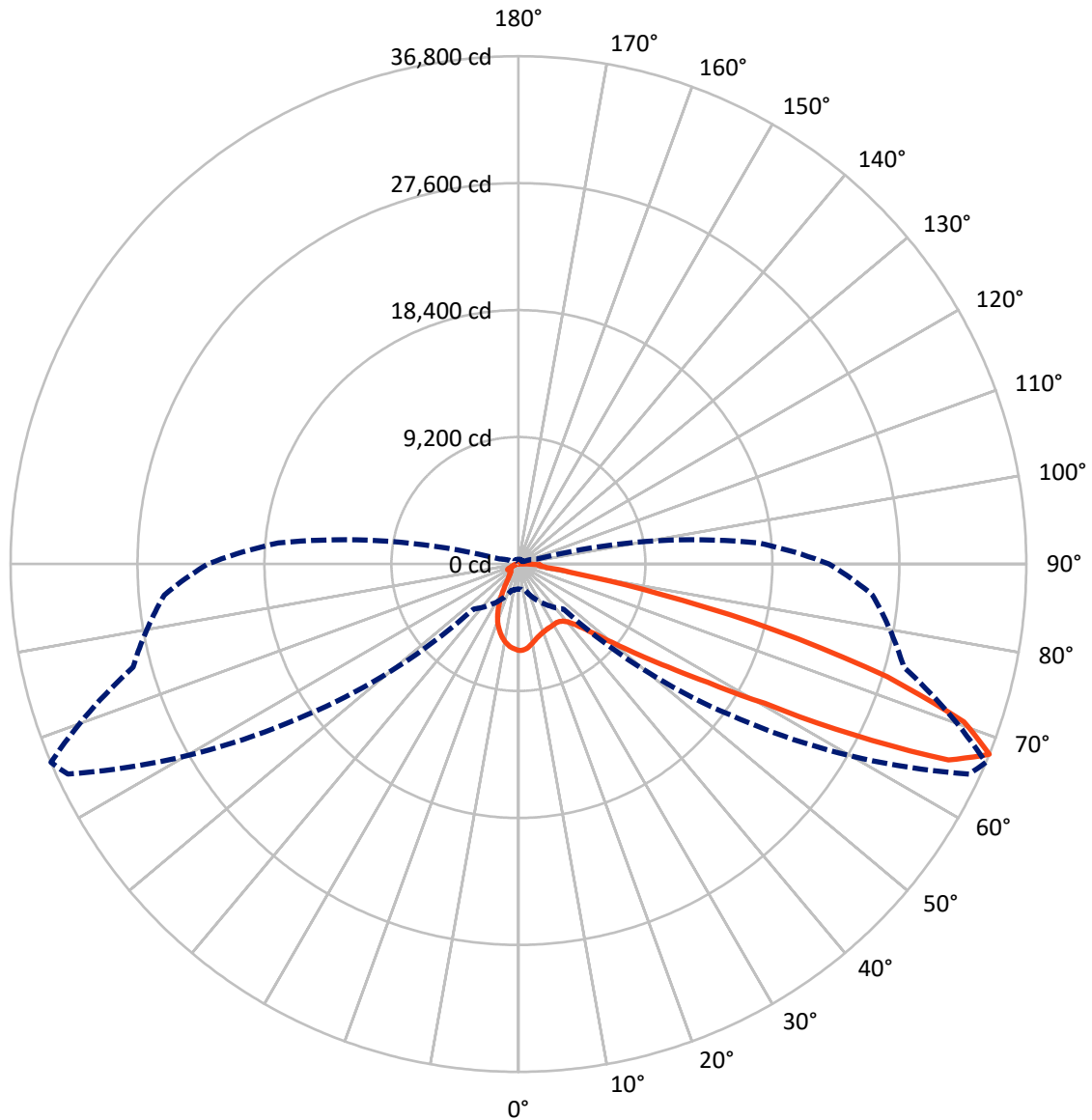


Based on 25 foot mounting height. Maximum calculated value = 10 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4812.2	0.0	4812.2
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	24231.5	0.0	24231.5
	% Fixture	83.4	0.0	83.4
Total	Lumens	29043.7	0.0	29043.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	534.5	1.8
10°-20°	1236.7	4.3
20°-30°	1676.3	5.8
30°-40°	2383.1	8.2
40°-50°	3987.0	13.7
50°-60°	6307.4	21.7
60°-70°	8035.0	27.7
70°-80°	4208.7	14.5
80°-90°	675.0	2.3
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°	29043.7	100.0
0°-180°	29043.7	100.0

Coefficient of Utilization



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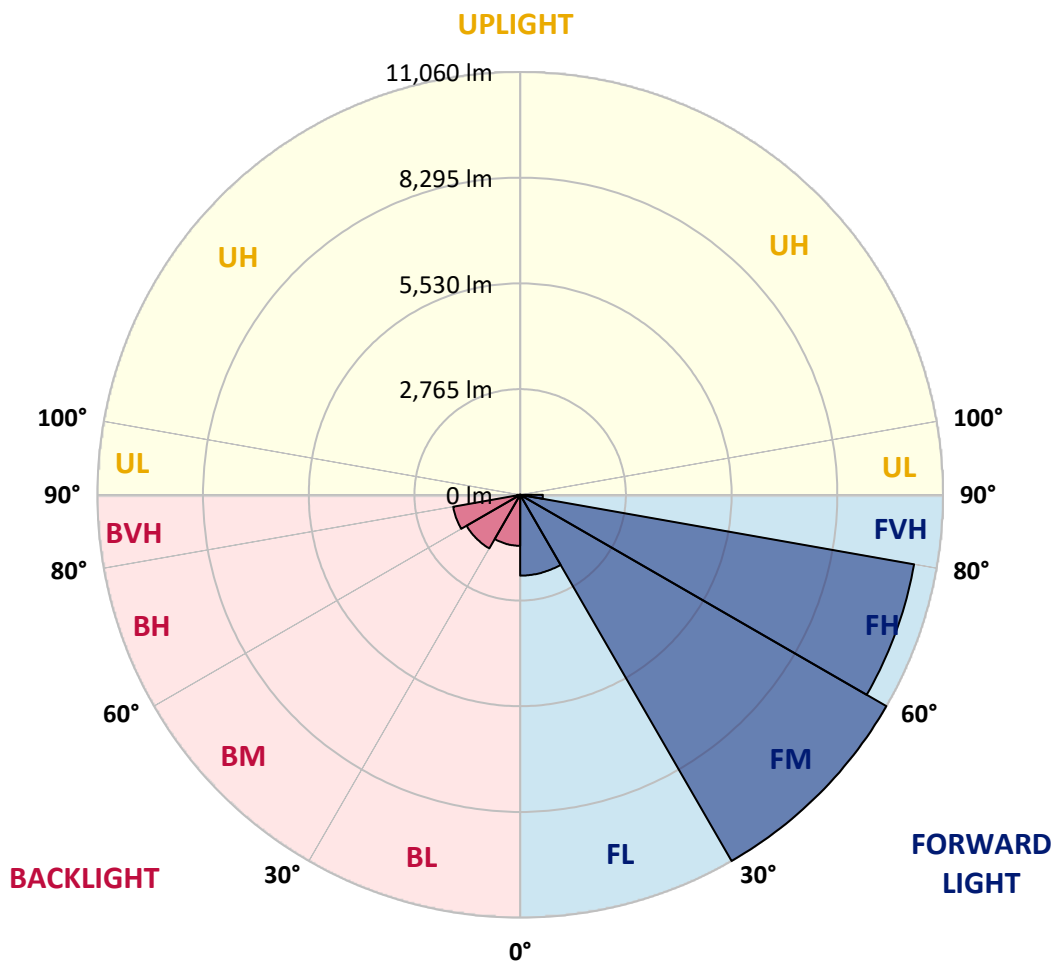
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2113.7	7.3			
FM	(30°-60°)	11060.5	38.1			
FH	(60°-80°)	10463.9	36.0			G4/12000
FVH	(80°-90°)	593.5	2.0			G4/750
BL	(0°-30°)	1333.8	4.6	B3/2500		
BM	(30°-60°)	1617.0	5.6	B2/2500		
BH	(60°-80°)	1779.9	6.1	B3/2500		G3/2500
BVH	(80°-90°)	81.5	0.3			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	6264.7	6264.7	6264.7	6264.7	6264.7	6264.7	6264.7	6264.7	6264.7	6264.7	6264.7
2.5°	6006.9	6016.9	6048.4	6068.4	6158.7	6197.4	6224.6	6251.8	6256.1	6269.0	6256.1
5°	5376.7	5398.2	5456.9	5522.8	5697.5	5835.0	5979.6	6130.0	6157.2	6254.6	6281.9
7.5°	4888.3	4882.5	4931.2	5010.0	5189.0	5379.5	5633.0	5932.4	5991.1	6210.2	6316.2
10°	4531.6	4527.3	4578.9	4660.5	4831.0	5011.4	5297.9	5707.5	5790.6	6140.1	6349.2
12.5°	4268.1	4269.5	4321.1	4411.3	4584.6	4766.5	5057.3	5489.8	5595.8	6058.4	6383.5
15°	4093.4	4104.8	4146.4	4242.3	4411.3	4593.2	4878.2	5326.5	5445.4	5994.0	6422.2
17.5°	4034.7	4053.3	4067.6	4137.8	4282.4	4464.3	4743.6	5206.2	5332.3	5949.6	6456.6
20°	4089.1	4110.6	4083.3	4107.7	4199.4	4359.8	4637.6	5111.7	5240.6	5899.4	6460.9
22.5°	4322.5	4342.6	4262.4	4192.2	4186.5	4283.9	4550.3	5037.2	5170.4	5862.2	6462.3
25°	4733.6	4746.5	4611.8	4448.6	4289.6	4256.7	4488.7	4985.7	5127.5	5829.3	6435.1
27.5°	5237.7	5247.8	5093.1	4852.5	4533.1	4321.1	4467.2	4955.6	5103.1	5800.6	6389.3
30°	5850.7	5898.0	5690.3	5386.7	4921.2	4511.6	4510.2	4939.8	5075.9	5751.9	6299.0
32.5°	6478.1	6498.1	6354.9	6047.0	5444.0	4846.7	4630.5	4951.3	5068.7	5693.2	6184.5
35°	7114.0	7139.8	7046.7	6798.9	6158.7	5338.0	4865.4	5018.6	5113.1	5673.1	6104.3
37.5°	7937.5	7971.9	7843.0	7556.6	7028.1	6004.0	5256.4	5187.6	5249.2	5730.4	6079.9
40°	9239.5	9223.7	8847.0	8420.2	7979.1	6856.2	5814.9	5474.1	5509.9	5915.2	6154.4
42.5°	10754.8	10716.1	10067.3	9397.0	9024.6	7887.4	6554.0	5971.1	5963.9	6279.0	6416.5
45°	11963.6	11932.1	11347.7	10521.3	10223.4	9061.9	7509.3	6711.5	6658.5	6856.2	6900.6
47.5°	12618.1	12619.6	12283.0	11608.4	11601.2	10554.3	8736.7	7782.9	7691.2	7784.3	7737.0
50°	12389.0	12419.1	12383.2	12168.4	12858.8	12510.7	10339.4	9276.7	9091.9	9183.6	9001.7
52.5°	11280.4	11319.1	11531.1	11860.5	13387.3	14875.4	12694.0	11132.9	10918.1	10885.1	10683.2
55°	9315.4	9362.6	9795.2	10690.3	12947.6	16463.7	16409.3	13499.0	13156.7	12845.9	12759.9
57.5°	6420.8	6499.6	7195.6	8524.8	11525.3	16943.5	20833.5	16871.9	16175.8	15090.2	15110.3
60°	3619.3	3711.0	4531.6	5739.0	8655.1	16422.2	24199.3	21980.8	20511.3	17718.4	17867.3
62.5°	2301.6	2400.5	3023.5	3987.4	5193.3	13615.0	25578.6	29083.3	27217.1	20958.1	21104.2
65°	1863.4	1906.3	2199.9	3291.3	3771.1	8202.5	24531.6	34934.0	34238.0	25070.1	24388.4
67.5°	1819.0	1833.3	1985.1	2762.8	3616.4	4610.4	19567.4	36028.3	36800.3	28910.0	25756.2
70°	1797.5	1847.6	2237.2	2636.8	3463.2	3888.6	11758.8	33029.1	34248.0	29914.0	23935.8
72.5°	872.2	869.4	1125.7	2384.7	3901.5	4033.2	6041.2	26724.4	27947.5	25916.6	19669.1
75°	703.2	643.1	614.4	873.7	3751.1	4165.0	3849.9	18388.7	19273.8	17376.1	12091.1
77.5°	667.4	595.8	545.7	547.1	1585.5	4417.1	3261.2	10177.6	10435.4	7848.7	3312.8
80°	552.8	487.0	451.2	508.4	767.7	4206.5	3526.2	4606.1	4226.6	1927.8	1102.8
82.5°	383.8	349.5	339.4	426.8	614.4	2997.7	4100.5	2474.9	2075.3	965.3	680.3
85°	244.9	209.1	232.0	310.8	478.4	1383.6	4223.7	1929.2	1533.9	613.0	383.8
87.5°	113.1	91.7	114.6	171.9	312.2	476.9	4018.9	2167.0	1579.8	323.7	242.1
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°	6264.7	6264.7	6264.7	6264.7	6264.7	6264.7	6264.7	6264.7	6264.7	6264.7	6264.7
2.5°	6267.5	6240.3	6218.8	6178.7	6134.3	6091.4	6052.7	6004.0	5989.7	5976.8	5996.8
5°	6287.6	6260.4	6181.6	6058.4	5922.4	5794.9	5667.4	5558.6	5491.3	5454.0	5475.5
7.5°	6317.7	6279.0	6115.7	5889.4	5644.5	5421.1	5190.5	5005.7	4869.7	4805.2	4823.8
10°	6344.9	6270.4	6004.0	5664.6	5306.5	4974.2	4610.4	4309.6	4086.2	3968.8	3997.4
12.5°	6356.3	6237.5	5847.9	5383.8	4892.6	4405.6	3869.9	3420.2	3099.4	2981.9	2957.6
15°	6367.8	6200.2	5676.0	5064.4	4392.7	3703.8	2953.3	2414.8	2148.4	2089.7	2076.8
17.5°	6370.7	6135.8	5481.2	4717.8	3806.9	2868.8	2019.5	1677.2	1678.6	1773.1	1784.6
20°	6340.6	6039.8	5244.9	4286.7	3105.1	1983.7	1386.4	1327.7	1544.0	1780.3	1808.9
22.5°	6271.8	5912.3	4977.1	3784.0	2301.6	1306.2	1072.8	1137.2	1416.5	1705.8	1738.8
25°	6184.5	5757.7	4660.5	3201.1	1523.9	933.8	899.5	978.2	1167.3	1360.6	1379.3
27.5°	6065.6	5574.3	4305.3	2533.7	989.7	769.1	792.0	845.0	922.4	1008.3	1016.9
30°	5912.3	5355.2	3925.8	1847.6	747.6	691.8	724.7	753.4	786.3	835.0	839.3
32.5°	5736.2	5144.6	3536.2	1276.1	663.1	651.7	677.5	691.8	717.6	747.6	750.5
35°	5588.6	4944.1	3132.3	902.3	627.3	621.6	638.8	644.5	668.9	701.8	704.7
37.5°	5504.1	4780.9	2715.5	727.6	603.0	594.4	604.4	604.4	638.8	687.5	694.6
40°	5509.9	4690.6	2298.8	657.4	582.9	571.5	572.9	572.9	617.3	670.3	674.6
42.5°	5666.0	4713.5	1929.2	630.2	567.2	554.3	547.1	551.4	588.7	623.0	625.9
45°	6032.6	4875.4	1582.6	613.0	551.4	547.1	531.4	529.9	544.3	560.0	560.0
47.5°	6634.2	5194.8	1347.7	601.5	538.5	537.1	518.5	499.9	498.4	504.2	504.2
50°	7612.4	5744.8	1190.2	588.7	529.9	518.5	497.0	468.3	458.3	462.6	462.6
52.5°	9079.0	6725.9	1130.0	571.5	511.3	492.7	468.3	439.7	431.1	432.5	432.5
55°	11002.6	8232.6	1121.5	551.4	491.3	461.2	441.1	419.6	409.6	412.5	412.5
57.5°	13352.9	10316.5	1274.7	519.9	464.0	429.7	418.2	403.9	396.7	401.0	399.6
60°	16210.2	13043.5	1890.6	487.0	436.8	401.0	401.0	389.6	383.8	388.1	386.7
62.5°	19501.5	16175.8	2658.3	462.6	408.2	378.1	383.8	378.1	372.4	375.2	373.8
65°	22420.5	18216.8	2489.3	444.0	379.5	356.6	366.7	363.8	359.5	362.4	360.9
67.5°	22505.0	17460.6	1397.9	423.9	352.3	335.1	349.5	348.0	345.2	348.0	346.6
70°	20084.5	14743.6	787.7	386.7	323.7	309.4	329.4	328.0	325.1	330.9	329.4
72.5°	16091.3	10698.9	575.8	340.9	295.0	282.2	305.1	303.6	303.6	312.2	307.9
75°	9259.5	5505.6	459.8	292.2	265.0	254.9	275.0	276.4	279.3	290.7	282.2
77.5°	2639.6	1715.8	375.2	247.8	227.7	223.4	243.5	246.3	247.8	260.7	249.2
80°	981.1	790.6	309.4	207.7	186.2	187.6	206.2	210.5	212.0	224.9	210.5
82.5°	625.9	521.3	250.6	160.4	146.1	144.7	167.6	173.3	173.3	174.7	166.1
85°	365.2	312.2	189.1	116.0	103.1	98.8	124.6	134.6	130.3	127.5	121.7
87.5°	244.9	214.8	116.0	64.5	55.9	53.0	73.0	80.2	77.3	73.0	68.7
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)