

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: P299213

Luminaire Tested: **GLNA-AF-10-LED-E1-SL2-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299213
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-10-LED-E1-SL2-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 46467.3 lumens
Efficiency: N/A
Efficacy: 110.9 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G5

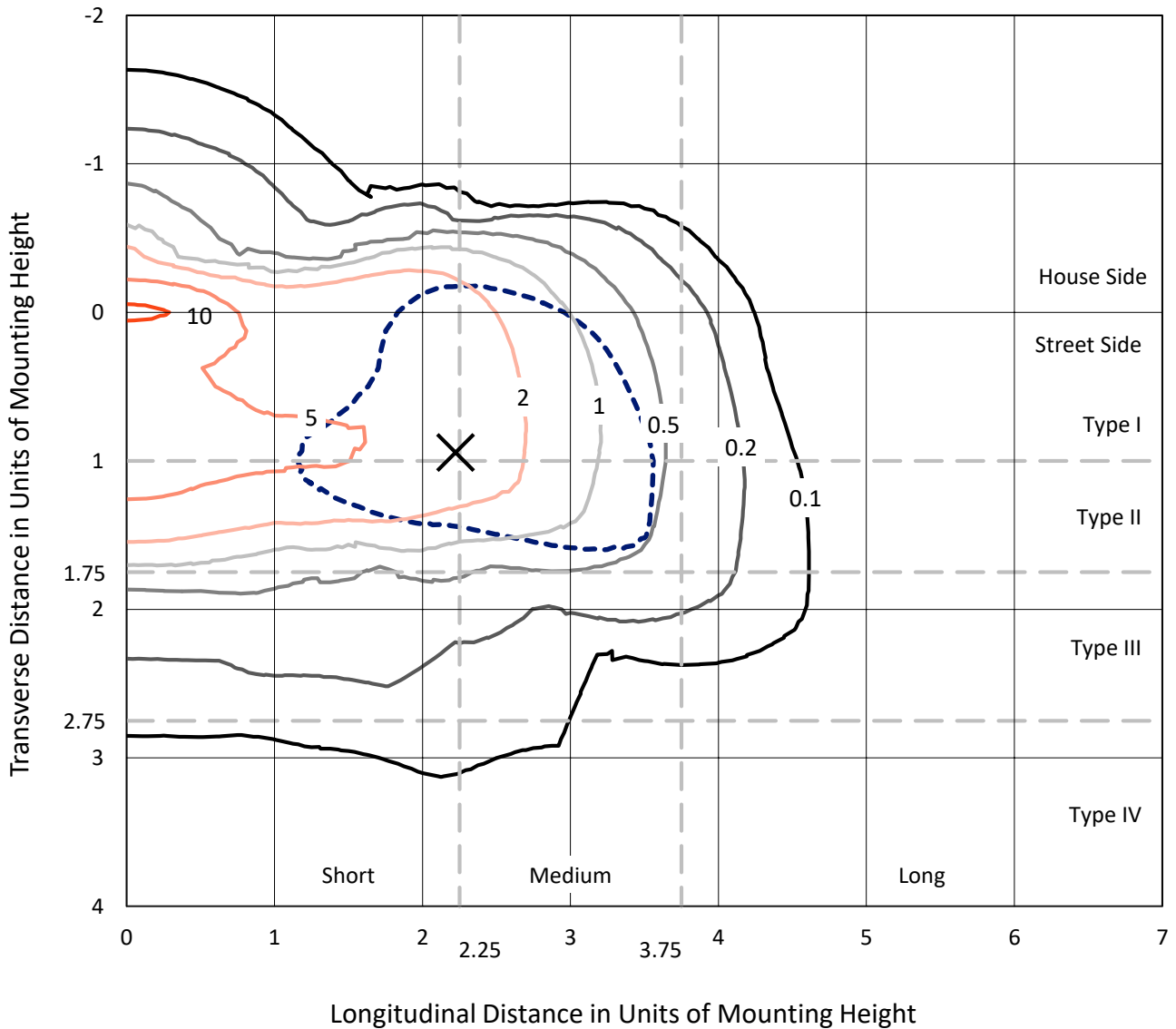
Input Watts (W): 419
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

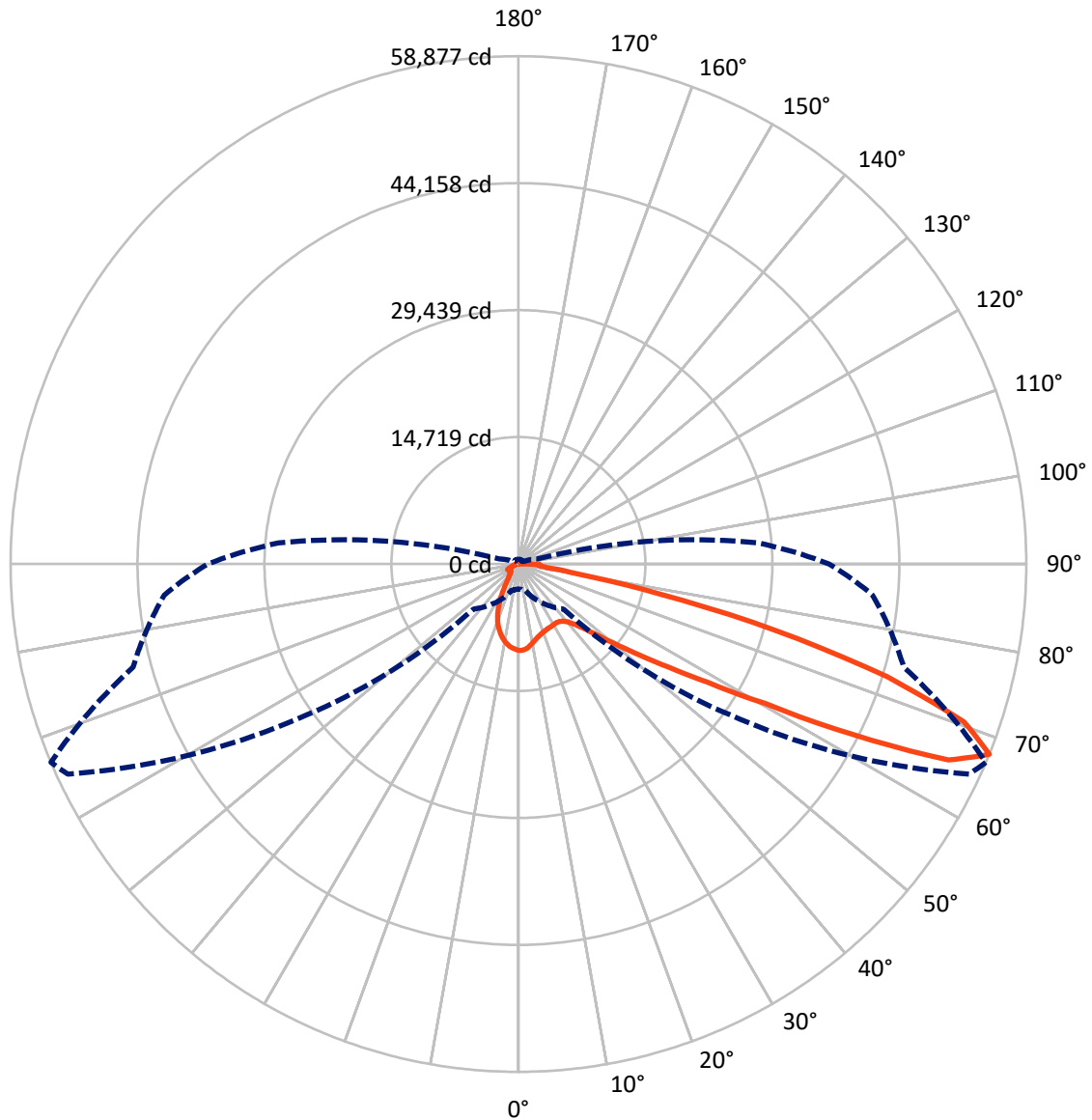
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11.1 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	7699.1	0.0	7699.1
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	38768.2	0.0	38768.2
	% Fixture	83.4	0.0	83.4
Total	Lumens	46467.3	0.0	46467.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	855.1	1.8
10°-20°	1978.6	4.3
20°-30°	2682.0	5.8
30°-40°	3812.7	8.2
40°-50°	6378.8	13.7
50°-60°	10091.3	21.7
60°-70°	12855.3	27.7
70°-80°	6733.6	14.5
80°-90°	1079.9	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°	46467.3	100.0
0°-180°	46467.3	100.0

Coefficient of Utilization



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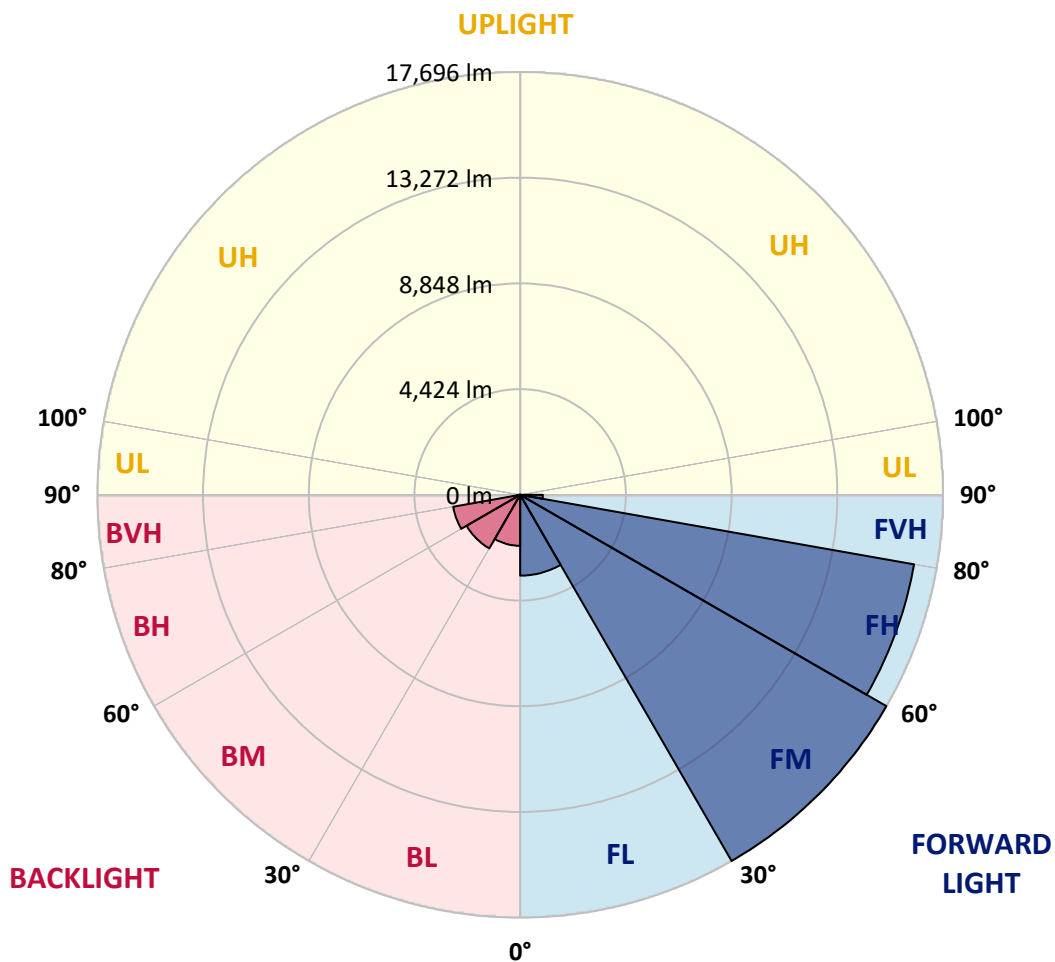
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3381.7	7.3			
FM (30°-60°)	17695.7	38.1			
FH (60°-80°)	16741.2	36.0			G5
FVH (80°-90°)	949.6	2.0			G5
BL (0°-30°)	2134.0	4.6	B3/2500		
BM (30°-60°)	2587.1	5.6	B3/5000		
BH (60°-80°)	2847.6	6.1	B4/5000		G4/5000
BVH (80°-90°)	130.3	0.3			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	10022.9	10022.9	10022.9	10022.9	10022.9	10022.9	10022.9	10022.9	10022.9	10022.9	10022.9
2.5°	9610.4	9626.5	9676.9	9708.9	9853.3	9915.2	9958.7	10002.3	10009.1	10029.8	10009.1
5°	8602.2	8636.5	8730.5	8835.9	9115.5	9335.4	9566.9	9807.5	9851.0	10006.8	10050.4
7.5°	7820.8	7811.6	7889.5	8015.6	8302.0	8606.8	9012.3	9491.3	9585.2	9935.8	10105.4
10°	7250.2	7243.3	7325.8	7456.4	7729.1	8017.8	8476.1	9131.5	9264.4	9823.5	10158.1
12.5°	6828.6	6830.9	6913.4	7057.7	7335.0	7626.0	8091.2	8783.2	8952.8	9692.9	10213.1
15°	6549.0	6567.3	6633.8	6787.3	7057.7	7348.7	7804.7	8522.0	8712.2	9589.8	10274.9
17.5°	6455.1	6484.9	6507.8	6620.0	6851.5	7142.5	7589.3	8329.5	8531.1	9518.8	10329.9
20°	6542.1	6576.5	6533.0	6571.9	6718.6	6975.2	7419.8	8178.2	8384.5	9438.6	10336.8
22.5°	6915.6	6947.7	6819.4	6707.1	6698.0	6853.8	7280.0	8059.1	8272.2	9379.0	10339.1
25°	7573.3	7593.9	7378.5	7117.3	6862.9	6810.2	7181.5	7976.6	8203.5	9326.3	10295.6
27.5°	8379.9	8395.9	8148.5	7763.5	7252.5	6913.4	7147.1	7928.5	8164.5	9280.4	10222.2
30°	9360.6	9436.3	9104.0	8618.2	7873.5	7218.1	7215.8	7903.3	8121.0	9202.5	10077.9
32.5°	10364.3	10396.4	10167.2	9674.6	8709.9	7754.3	7408.3	7921.6	8109.5	9108.6	9894.6
35°	11381.7	11423.0	11274.0	10877.6	9853.3	8540.3	7784.1	8029.3	8180.5	9076.5	9766.2
37.5°	12699.3	12754.3	12548.1	12089.8	11244.2	9605.8	8409.7	8299.7	8398.2	9168.2	9727.3
40°	14782.3	14757.0	14154.4	13471.5	12765.8	10969.3	9303.4	8758.0	8815.3	9463.8	9846.4
42.5°	17206.6	17144.8	16106.7	15034.3	14438.5	12619.1	10485.8	9553.1	9541.7	10045.8	10265.8
45°	19140.6	19090.2	18155.3	16833.1	16356.5	14498.1	12014.2	10737.8	10653.0	10969.3	11040.3
47.5°	20187.8	20190.1	19651.6	18572.3	18560.9	16885.8	13978.0	12451.8	12305.2	12454.1	12378.5
50°	19821.2	19869.3	19812.0	19468.3	20572.8	20016.0	16542.1	14841.8	14546.2	14692.9	14401.9
52.5°	18047.6	18109.5	18448.6	18975.6	21418.3	23799.2	20309.3	17811.6	17467.9	17415.2	17092.1
55°	14903.7	14979.3	15671.3	17103.5	20714.9	26340.4	26253.3	21597.1	21049.4	20552.2	20414.7
57.5°	10272.6	10398.7	11512.3	13638.8	18439.4	27108.1	33331.7	26993.5	25879.8	24142.9	24175.0
60°	5790.5	5937.2	7250.2	9181.9	13847.3	26274.0	38716.6	35167.1	32816.1	28347.7	28586.1
62.5°	3682.4	3840.5	4837.3	6379.4	8308.9	21782.7	40923.3	46530.5	43544.8	33531.0	33764.8
65°	2981.2	3049.9	3519.7	5265.8	6033.4	13123.2	39248.3	55891.2	54777.5	40109.8	39019.1
67.5°	2910.2	2933.1	3176.0	4420.2	5786.0	7376.2	31306.0	57641.9	58877.0	46253.3	41207.5
70°	2875.8	2956.0	3579.3	4218.6	5540.8	6221.3	18812.9	52843.5	54793.6	47859.6	38295.0
72.5°	1395.5	1390.9	1801.1	3815.3	6242.0	6452.8	9665.4	42756.5	44713.4	41464.1	31468.7
75°	1125.1	1028.9	983.0	1397.8	6001.4	6663.6	6159.5	29420.1	30836.3	27800.1	19344.6
77.5°	1067.8	953.3	873.0	875.3	2536.7	7066.9	5217.7	16283.2	16695.6	12557.2	5300.2
80°	884.5	779.1	721.8	813.5	1228.2	6730.0	5641.6	7369.4	6762.1	3084.3	1764.4
82.5°	614.1	559.1	543.1	682.9	983.0	4796.0	6560.5	3959.7	3320.3	1544.4	1088.4
85°	391.8	334.6	371.2	497.2	765.4	2213.6	6757.5	3086.6	2454.2	980.7	614.1
87.5°	181.0	146.7	183.3	275.0	499.5	763.1	6429.9	3467.0	2527.5	517.9	387.3
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°	10022.9	10022.9	10022.9	10022.9	10022.9	10022.9	10022.9	10022.9	10022.9	10022.9	10022.9
2.5°	10027.5	9983.9	9949.6	9885.4	9814.4	9745.6	9683.7	9605.8	9582.9	9562.3	9594.4
5°	10059.5	10016.0	9890.0	9692.9	9475.2	9271.3	9067.3	8893.2	8785.5	8725.9	8760.3
7.5°	10107.7	10045.8	9784.6	9422.5	9030.7	8673.2	8304.3	8008.7	7791.0	7687.9	7717.7
10°	10151.2	10032.0	9605.8	9062.8	8489.9	7958.3	7376.2	6895.0	6537.6	6349.7	6395.5
12.5°	10169.5	9979.3	9356.1	8613.6	7827.7	7048.6	6191.5	5472.0	4958.7	4770.8	4731.9
15°	10187.9	9919.8	9081.1	8102.6	7027.9	5925.7	4725.0	3863.4	3437.2	3343.3	3322.6
17.5°	10192.4	9816.6	8769.4	7548.1	6090.7	4589.8	3231.0	2683.3	2685.6	2836.8	2855.2
20°	10144.3	9663.1	8391.4	6858.4	4967.9	3173.7	2218.1	2124.2	2470.2	2848.3	2894.1
22.5°	10034.3	9459.2	7962.8	6054.1	3682.4	2089.8	1716.3	1819.4	2266.3	2729.1	2781.8
25°	9894.6	9211.7	7456.4	5121.4	2438.1	1494.0	1439.0	1565.1	1867.5	2176.9	2206.7
27.5°	9704.4	8918.4	6888.2	4053.6	1583.4	1230.5	1267.2	1352.0	1475.7	1613.2	1626.9
30°	9459.2	8567.8	6280.9	2956.0	1196.1	1106.8	1159.5	1205.3	1258.0	1335.9	1342.8
32.5°	9177.3	8231.0	5657.6	2041.7	1060.9	1042.6	1083.9	1106.8	1148.0	1196.1	1200.7
35°	8941.3	7910.1	5011.4	1443.6	1003.7	994.5	1022.0	1031.2	1070.1	1122.8	1127.4
37.5°	8806.1	7648.9	4344.6	1164.1	964.7	951.0	967.0	967.0	1022.0	1099.9	1111.4
40°	8815.3	7504.6	3677.8	1051.8	932.6	914.3	916.6	916.6	987.6	1072.4	1079.3
42.5°	9065.0	7541.2	3086.6	1008.2	907.4	886.8	875.3	882.2	941.8	996.8	1001.4
45°	9651.7	7800.2	2532.1	980.7	882.2	875.3	850.1	847.8	870.8	896.0	896.0
47.5°	10614.1	8311.2	2156.3	962.4	861.6	859.3	829.5	799.7	797.4	806.6	806.6
50°	12179.1	9191.1	1904.2	941.8	847.8	829.5	795.1	749.3	733.3	740.1	740.1
52.5°	14525.6	10760.7	1808.0	914.3	818.1	788.3	749.3	703.5	689.7	692.0	692.0
55°	17603.1	13171.4	1794.2	882.2	786.0	737.9	705.8	671.4	655.4	659.9	659.9
57.5°	21363.3	16505.4	2039.4	831.8	742.4	687.4	669.1	646.2	634.7	641.6	639.3
60°	25934.8	20868.4	3024.7	779.1	698.9	641.6	641.6	623.3	614.1	621.0	618.7
62.5°	31200.6	25879.8	4253.0	740.1	653.1	604.9	614.1	604.9	595.8	600.4	598.1
65°	35870.6	29145.2	3982.6	710.4	607.2	570.6	586.6	582.0	575.2	579.7	577.4
67.5°	36005.8	27935.3	2236.5	678.3	563.7	536.2	559.1	556.8	552.2	556.8	554.5
70°	32133.2	23588.4	1260.3	618.7	517.9	495.0	527.0	524.7	520.2	529.3	527.0
72.5°	25744.6	17117.3	921.2	545.4	472.0	451.4	488.1	485.8	485.8	499.5	492.7
75°	14814.3	8808.4	735.6	467.5	423.9	407.9	440.0	442.3	446.8	465.2	451.4
77.5°	4223.2	2745.2	600.4	396.4	364.3	357.5	389.5	394.1	396.4	417.0	398.7
80°	1569.7	1264.9	495.0	332.3	297.9	300.2	330.0	336.8	339.1	359.8	336.8
82.5°	1001.4	834.1	401.0	256.6	233.7	231.4	268.1	277.3	277.3	279.6	265.8
85°	584.3	499.5	302.5	185.6	165.0	158.1	199.4	215.4	208.5	203.9	194.8
87.5°	391.8	343.7	185.6	103.1	89.4	84.8	116.9	128.3	123.7	116.9	110.0
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)