

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: P301857

Luminaire Tested: **GLNA-AF-10-LED-E1-SL4-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301857
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
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-SL4-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43446.6 lumens
Efficiency: N/A
Efficacy: 77.9 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G5

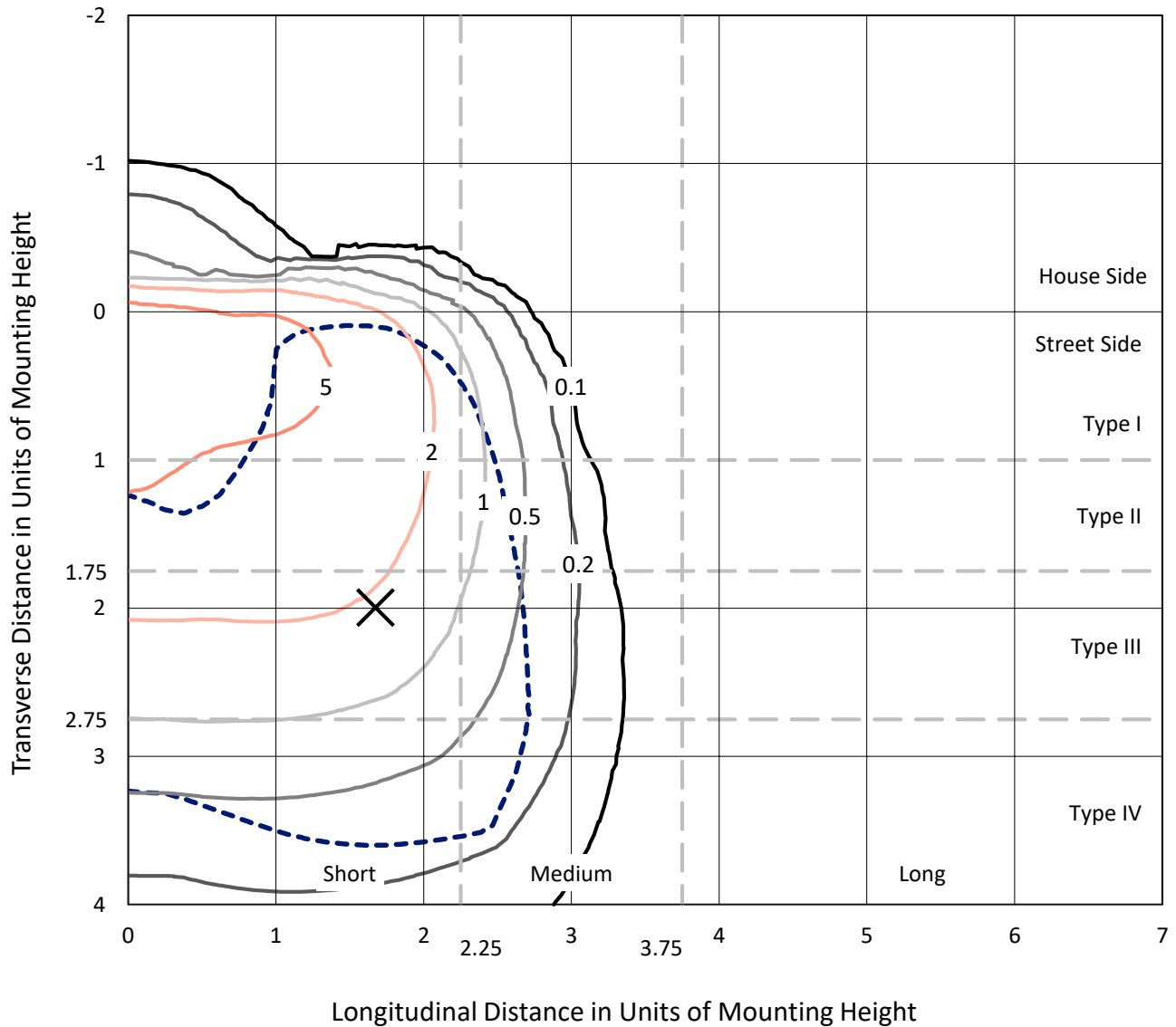
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

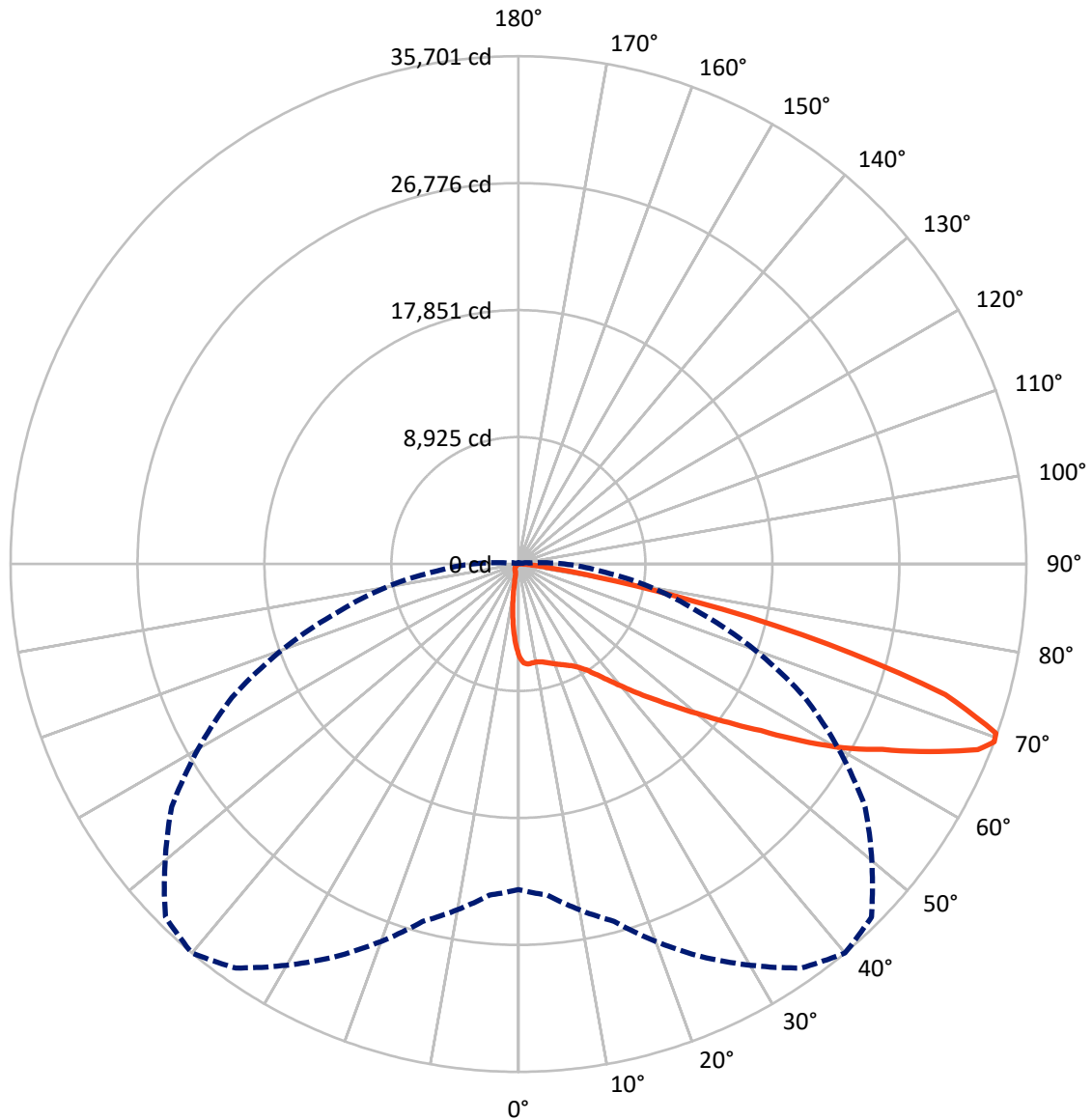
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2541.9	0.0	2541.9
	% Fixture	5.9	0.0	5.9
Street Side	Lumens	40904.8	0.0	40904.8
	% Fixture	94.1	0.0	94.1
Total	Lumens	43446.6	0.0	43446.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	526.3	1.2
10°-20°	1294.3	3.0
20°-30°	2180.0	5.0
30°-40°	3568.7	8.2
40°-50°	6179.2	14.2
50°-60°	9732.8	22.4
60°-70°	12710.7	29.3
70°-80°	6546.6	15.1
80°-90°	708.1	1.6
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°	43446.6	100.0
0°-180°	43446.6	100.0

Coefficient of Utilization



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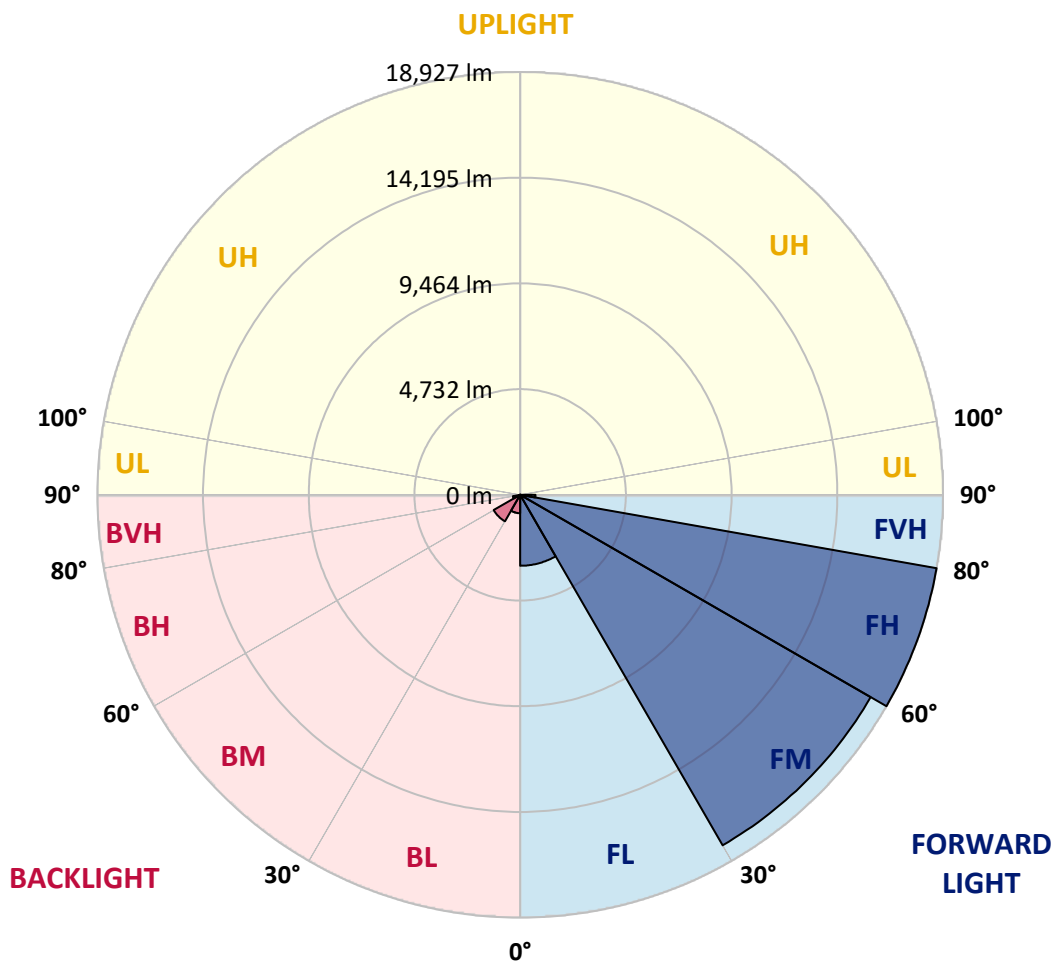
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3177.2	7.3			
FM	(30°-60°)	18114.5	41.7			
FH	(60°-80°)	18927.1	43.6			G5
FVH	(80°-90°)	685.9	1.6			G4/750
BL	(0°-30°)	823.4	1.9	B2/1000		
BM	(30°-60°)	1366.2	3.1	B2/2500		
BH	(60°-80°)	330.1	0.8	B1/500		G1/500
BVH	(80°-90°)	22.2	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	6491.2	6491.2	6491.2	6491.2	6491.2	6491.2	6491.2	6491.2	6491.2	6491.2	6491.2
2.5°	7127.3	7088.5	7065.3	7034.2	6995.4	6961.8	6948.9	6853.2	6762.7	6638.6	6496.3
5°	7259.2	7246.3	7204.9	7163.5	7117.0	7065.3	7036.8	6923.0	6793.7	6612.7	6364.4
7.5°	7272.2	7256.6	7204.9	7148.0	7083.4	7021.3	6972.2	6858.4	6739.4	6555.8	6253.2
10°	7251.5	7233.4	7194.6	7132.5	7052.3	6992.9	6943.7	6835.1	6734.2	6568.7	6232.5
12.5°	7228.2	7210.1	7192.0	7161.0	7091.1	7049.8	7008.4	6904.9	6814.4	6674.8	6307.5
15°	7251.5	7241.1	7261.8	7248.9	7210.1	7173.9	7132.5	7039.4	6956.7	6840.3	6444.6
17.5°	7349.7	7349.7	7414.4	7422.2	7385.9	7334.2	7274.7	7181.6	7111.8	7013.5	6607.5
20°	7579.9	7572.1	7654.9	7670.4	7582.5	7502.3	7414.4	7300.6	7246.3	7184.2	6767.9
22.5°	7975.6	7939.4	7988.5	7973.0	7799.7	7675.6	7567.0	7427.3	7398.9	7370.4	6946.3
25°	8490.2	8469.5	8503.2	8350.6	8045.4	7877.3	7748.0	7590.3	7590.3	7618.7	7148.0
27.5°	9237.6	9160.0	9046.2	8777.3	8319.5	8104.9	7965.2	7797.1	7841.1	7947.1	7414.4
30°	10003.1	9917.8	9656.6	9242.8	8653.1	8428.2	8265.2	8089.4	8192.8	8386.8	7771.3
32.5°	10758.2	10662.6	10292.7	9770.3	9131.6	8906.6	8748.8	8554.9	8728.1	9054.0	8293.7
35°	11490.1	11404.8	10978.1	10362.6	9767.8	9581.6	9436.7	9268.6	9491.0	9946.2	9030.7
37.5°	12312.5	12219.4	11699.6	11032.4	10541.0	10406.5	10300.5	10132.4	10520.3	11187.5	10057.4
40°	13323.7	13165.9	12465.1	11800.4	11435.8	11371.2	11298.7	11275.5	11878.0	12801.3	11425.5
42.5°	14482.3	14223.6	13266.8	12609.9	12418.5	12465.1	12447.0	12550.4	13577.1	14808.1	13090.9
45°	15640.8	15307.2	14159.0	13473.7	13499.5	13662.5	13763.3	14177.1	15705.5	17109.7	14883.1
47.5°	16623.6	16295.1	15015.0	14407.3	14717.6	15038.3	15312.4	16096.0	17893.3	19375.2	16277.0
50°	17464.0	17153.7	15922.7	15433.9	16132.2	16649.4	17094.2	18255.4	20246.7	21100.1	17254.6
52.5°	18152.0	17945.1	16864.1	16610.6	17748.5	18506.2	19158.0	20549.3	22331.1	22501.8	18014.9
55°	18821.8	18674.3	17875.2	18009.7	19646.7	20678.6	21503.6	22982.8	24125.9	23670.7	18744.2
57.5°	19592.4	19457.9	19028.6	19783.8	22142.3	23440.6	24340.5	25139.6	25706.0	24865.5	19432.1
60°	20378.6	20301.0	20311.4	21754.4	25007.7	26254.3	26750.8	26957.7	27257.7	25990.5	19470.9
62.5°	21128.6	21276.0	21777.7	23947.4	27751.6	28708.5	28959.3	29163.6	28811.9	26168.9	17989.0
65°	22398.4	22638.9	23836.2	26882.7	30769.6	31793.7	32052.3	31351.5	29057.6	23862.1	14632.2
67.5°	23019.0	23458.7	25594.8	29618.8	33697.1	34835.0	34739.3	31493.7	26075.8	18195.9	9390.2
69°	22889.7	23357.8	26000.8	30456.7	34669.5	35701.3	35093.6	29753.3	22214.7	13181.4	5764.5
70°	22377.7	22850.9	25791.3	30425.7	34793.6	35610.8	34436.7	27604.2	18783.0	9638.5	3605.0
72.5°	18687.3	19095.9	22897.5	27500.8	32052.3	31387.7	28809.3	19124.3	9152.3	2624.9	812.0
75°	11503.0	11730.6	16429.6	20717.4	24208.6	22501.8	19194.2	9514.3	2728.4	742.2	450.0
77.5°	6077.4	6180.8	8994.5	12211.6	15346.0	12697.8	9837.6	3711.1	1256.9	465.5	325.9
80°	3592.1	3669.7	4843.8	5583.4	6641.1	5547.2	3933.5	2278.4	900.0	292.2	289.6
82.5°	2056.0	2105.1	3511.9	3103.3	2617.1	2234.4	1957.7	2159.4	540.5	196.5	300.0
85°	755.1	765.5	1975.8	2361.1	1556.8	925.8	972.4	1789.6	144.8	124.1	235.3
87.5°	351.7	344.0	1016.3	1445.6	910.3	587.0	757.7	393.1	56.9	80.2	64.7
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°	6491.2	6491.2	6491.2	6491.2	6491.2	6491.2	6491.2	6491.2	6491.2	6491.2	6491.2
2.5°	6413.6	6317.9	6144.6	5966.2	5785.1	5645.5	5508.4	5399.8	5363.6	5296.4	5301.5
5°	6217.0	6041.2	5679.1	5311.9	4929.1	4613.6	4316.2	4075.7	3959.3	3840.4	3840.4
7.5°	6046.3	5790.3	5224.0	4626.6	4008.5	3488.7	3020.6	2668.9	2474.9	2319.7	2317.2
10°	5981.7	5635.1	4843.8	3987.8	3126.6	2418.0	1862.0	1505.1	1321.5	1202.5	1197.4
12.5°	6010.1	5580.8	4551.6	3398.2	2317.2	1554.3	1078.4	848.2	770.7	734.5	734.5
15°	6092.9	5565.3	4259.3	2821.5	1637.0	972.4	716.4	654.3	649.1	649.1	649.1
17.5°	6193.7	5570.5	3959.3	2260.3	1114.6	695.7	618.1	610.3	615.5	615.5	615.5
20°	6297.2	5573.1	3636.1	1740.5	786.2	605.2	581.9	579.3	584.5	584.5	587.0
22.5°	6423.9	5586.0	3312.8	1300.8	649.1	571.5	553.4	553.4	556.0	556.0	553.4
25°	6568.7	5611.9	2976.6	964.6	592.2	548.3	532.7	530.2	532.7	530.2	527.6
27.5°	6749.8	5648.1	2601.6	755.1	566.4	525.0	512.1	512.1	509.5	506.9	504.3
30°	6977.3	5689.5	2180.1	641.4	540.5	504.3	491.4	488.8	486.2	481.0	481.0
32.5°	7323.9	5780.0	1763.7	581.9	512.1	475.8	465.5	465.5	460.3	455.2	452.6
35°	7856.6	5958.4	1391.3	545.7	481.0	444.8	431.9	431.9	426.7	424.1	421.5
37.5°	8593.7	6230.0	1081.0	512.1	450.0	411.2	398.3	395.7	390.5	385.3	382.7
40°	9573.8	6566.1	850.8	481.0	419.0	377.6	367.2	362.1	351.7	344.0	344.0
42.5°	10804.8	6948.9	690.5	447.4	382.7	346.5	338.8	331.0	312.9	305.2	302.6
45°	12092.7	7292.8	584.5	408.6	346.5	315.5	310.3	297.4	274.1	266.4	266.4
47.5°	13021.1	7373.0	514.6	372.4	312.9	281.9	279.3	256.0	235.3	230.2	227.6
50°	13600.4	7215.3	457.7	336.2	281.9	250.9	243.1	214.6	201.7	196.5	194.0
52.5°	13990.9	6933.4	411.2	305.2	253.4	222.4	204.3	183.6	173.3	168.1	168.1
55°	14303.8	6535.1	364.6	276.7	230.2	199.1	173.3	157.8	147.4	142.2	142.2
57.5°	14391.7	5994.6	318.1	253.4	206.9	175.9	147.4	137.1	124.1	121.5	121.5
60°	13753.0	5019.7	281.9	225.0	186.2	152.6	129.3	116.4	103.4	100.9	98.3
62.5°	12069.4	3884.3	248.3	199.1	162.9	131.9	111.2	95.7	85.3	85.3	85.3
65°	9206.6	2604.2	217.2	173.3	142.2	111.2	95.7	77.6	72.4	72.4	75.0
67.5°	5511.0	1417.2	186.2	147.4	121.5	93.1	80.2	67.2	64.7	67.2	67.2
69°	3230.1	832.7	168.1	131.9	106.0	82.8	69.8	59.5	64.7	67.2	67.2
70°	1993.9	561.2	155.2	119.0	95.7	75.0	64.7	56.9	62.1	64.7	64.7
72.5°	556.0	289.6	124.1	93.1	77.6	62.1	51.7	51.7	59.5	62.1	62.1
75°	362.1	214.6	95.7	69.8	59.5	49.1	44.0	49.1	56.9	59.5	59.5
77.5°	300.0	175.9	77.6	56.9	49.1	46.6	41.4	44.0	51.7	54.3	54.3
80°	274.1	124.1	62.1	51.7	44.0	41.4	38.8	36.2	46.6	49.1	49.1
82.5°	261.2	98.3	54.3	46.6	41.4	36.2	33.6	36.2	41.4	44.0	46.6
85°	162.9	64.7	49.1	44.0	36.2	33.6	33.6	33.6	38.8	41.4	41.4
87.5°	59.5	51.7	44.0	36.2	31.0	31.0	31.0	31.0	33.6	38.8	38.8
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)