

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: P300654

Luminaire Tested: **GLNA-AF-10-LED-E1-AFL-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300654
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24297)
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-AFL-7027-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND
Automotive Frontline WITH HOUSESIDE SHIELD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38069.1 lumens
Efficiency: N/A
Efficacy: 68.2 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

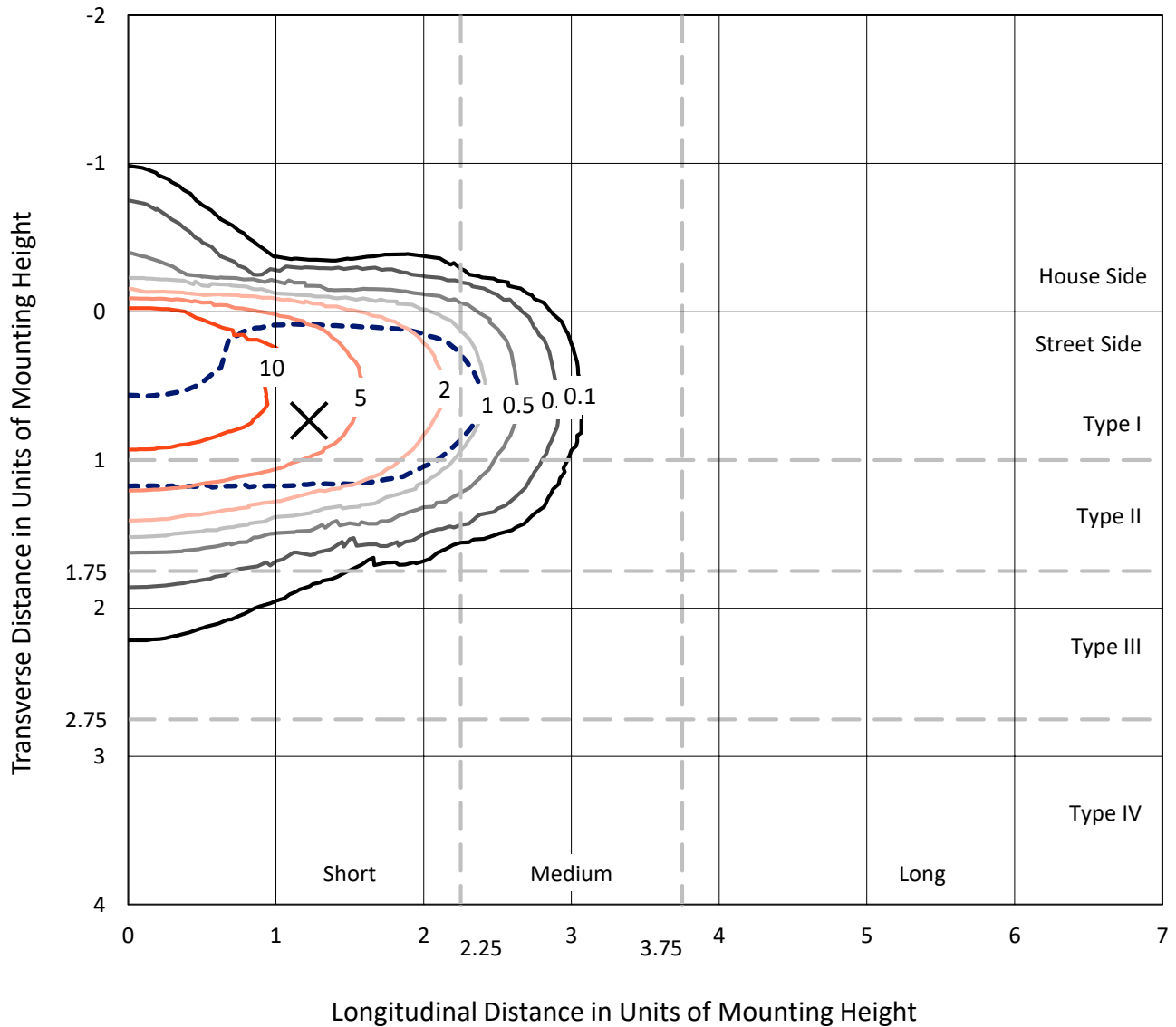
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

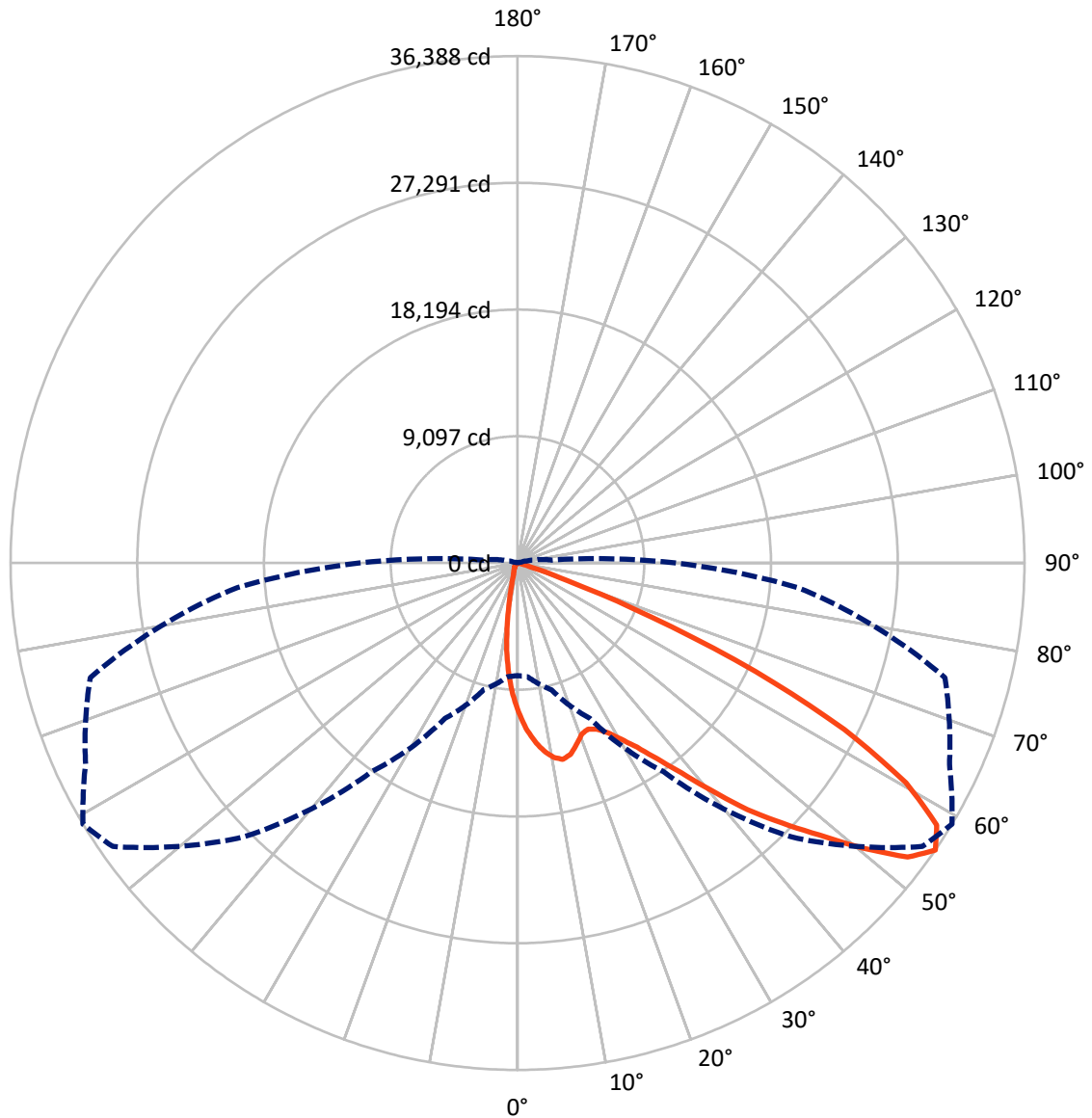
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.8 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2126.4	0.0	2126.4
	% Fixture	5.6	0.0	5.6
Street Side	Lumens	35942.7	0.0	35942.7
	% Fixture	94.4	0.0	94.4
Total	Lumens	38069.1	0.0	38069.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	897.6	2.4
10°-20°	2149.1	5.6
20°-30°	3657.0	9.6
30°-40°	6289.2	16.5
40°-50°	9709.8	25.5
50°-60°	9761.5	25.6
60°-70°	5005.7	13.1
70°-80°	542.5	1.4
80°-90°	56.7	0.1
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°	38069.1	100.0
0°-180°	38069.1	100.0

Coefficient of Utilization



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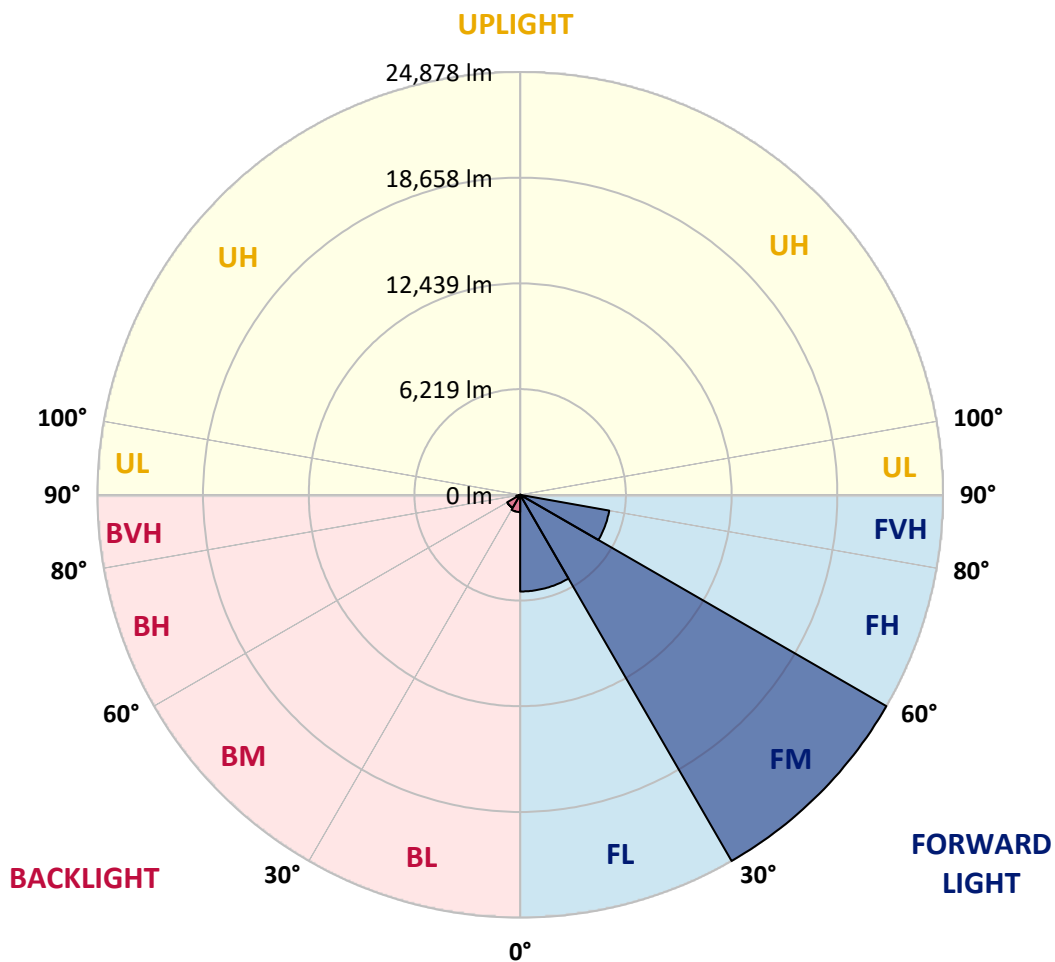
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5688.8	14.9			
FM	(30°-60°)	24878.0	65.3			
FH	(60°-80°)	5320.4	14.0			G3/7500
FVH	(80°-90°)	55.5	0.1			G1/100
BL	(0°-30°)	1014.9	2.7	B3/2500		
BM	(30°-60°)	882.5	2.3	B1/1000		
BH	(60°-80°)	227.8	0.6	B1/500		G1/500
BVH	(80°-90°)	1.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	10716.3	10716.3	10716.3	10716.3	10716.3	10716.3	10716.3	10716.3	10716.3	10716.3	10716.3
2.5°	12679.8	12545.0	12504.6	12477.6	12354.1	12199.1	11987.9	11889.0	11686.8	11361.1	10961.2
5°	13841.3	13816.6	13726.8	13677.3	13544.8	13324.6	12987.6	12825.9	12504.6	11956.4	11239.8
7.5°	13333.6	13488.6	13612.2	13818.9	14079.5	14070.5	13787.4	13618.9	13259.5	12536.1	11549.8
10°	11372.3	11498.1	11700.3	12169.9	13126.9	13971.6	14304.1	14182.8	13895.3	13068.5	11848.6
12.5°	10988.1	10974.7	11010.6	11147.7	11648.6	12852.8	14216.5	14461.4	14403.0	13556.0	12131.7
15°	11192.6	11176.9	11172.4	11219.5	11340.9	11848.6	13558.3	14261.5	14713.0	14007.6	12372.1
17.5°	11765.5	11698.1	11662.1	11623.9	11588.0	11713.8	12767.5	13702.0	14760.2	14403.0	12572.0
20°	12747.2	12634.9	12502.4	12286.7	12084.5	12021.6	12435.0	13126.9	14591.7	14704.0	12702.3
22.5°	13980.6	13836.8	13607.7	13214.5	12803.4	12565.3	12599.0	12944.9	14340.1	15032.0	12763.0
25°	15366.8	15182.6	14877.0	14331.1	13726.8	13304.4	13084.2	13205.5	14225.5	15416.2	12832.6
27.5°	16851.8	16647.3	16247.5	15503.8	14818.6	14248.0	13798.7	13782.9	14421.0	15919.4	12944.9
30°	18323.3	18291.9	17770.6	16984.3	16076.7	15382.5	14735.5	14652.4	14966.9	16615.9	13167.4
32.5°	20286.8	20051.0	19412.9	18604.1	17557.2	16723.7	15957.6	15764.4	15804.9	17426.9	13511.1
35°	22762.6	22504.2	21605.6	20489.0	19318.6	18334.5	17487.6	17224.7	17125.9	18754.7	14090.7
37.5°	24362.2	24357.7	23793.8	22657.0	21401.2	20316.1	19394.9	19087.2	18887.2	20358.7	14989.4
40°	24404.9	24510.5	24584.6	24573.4	23679.2	22679.5	21861.7	21482.0	21017.0	22502.0	16150.8
42.5°	23095.1	23366.9	24020.7	25130.5	25660.7	25263.1	24573.4	24200.4	23508.5	24795.8	17566.2
45°	21324.8	21513.5	22657.0	24701.4	26734.6	27824.2	27298.5	26631.3	25719.1	27188.4	18835.5
47.5°	20531.7	20565.4	21304.6	23548.9	26815.5	29922.5	30241.6	29156.4	27727.6	29116.0	19828.5
50°	18161.6	18222.2	19242.2	21551.7	25867.4	30913.3	33198.1	32169.1	29918.0	30601.0	20190.2
52.5°	13688.6	13773.9	15068.0	18269.4	23261.4	30490.9	35314.4	35065.0	32317.4	31326.7	20210.5
55°	8076.5	8188.9	9424.5	12297.9	18296.4	27804.0	35471.7	36388.3	34211.3	31755.8	20179.0
57.5°	3772.1	3850.7	4558.4	6335.4	11379.1	21974.0	33103.7	35480.6	35256.0	31982.7	20401.4
60°	2004.0	2026.4	2197.2	2743.1	5142.5	13933.4	28482.5	32038.8	34303.4	32297.2	20673.3
62.5°	1532.2	1538.9	1529.9	1595.1	2161.2	6184.9	21529.2	26339.2	30468.5	32061.3	20372.2
65°	1327.7	1339.0	1276.1	1260.3	1386.2	2206.2	12789.9	18774.9	23942.1	28877.9	18321.1
67.5°	1190.7	1195.2	1118.8	1053.7	1076.1	1192.9	5045.9	10278.2	15847.6	21167.5	13279.7
70°	1096.3	1091.9	1008.7	905.4	876.2	815.5	1604.1	3767.6	7573.3	10734.3	6175.9
72.5°	970.5	972.8	932.3	797.5	727.9	570.6	743.6	1098.6	2260.1	2925.1	1446.8
75°	860.4	849.2	799.8	714.4	599.8	375.2	368.4	489.8	696.4	692.0	312.3
77.5°	622.3	611.1	626.8	586.4	460.6	242.6	184.2	235.9	283.1	274.1	87.6
80°	456.1	449.3	404.4	487.5	406.6	166.2	114.6	125.8	146.0	123.6	27.0
82.5°	312.3	310.0	285.3	269.6	231.4	101.1	71.9	78.6	94.4	69.6	13.5
85°	49.4	56.2	206.7	164.0	137.0	44.9	49.4	53.9	62.9	38.2	4.5
87.5°	0.0	0.0	96.6	85.4	27.0	18.0	29.2	31.5	31.5	20.2	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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	10716.3	10716.3	10716.3	10716.3	10716.3	10716.3	10716.3	10716.3	10716.3	10716.3	10716.3
2.5°	10756.7	10532.1	10116.5	9687.4	9289.7	8815.7	8489.9	8245.0	7962.0	7885.6	8051.8
5°	10830.9	10406.3	9512.1	8539.3	7625.0	6611.8	5836.7	5223.4	4668.4	4479.7	4650.5
7.5°	10947.7	10316.4	8858.4	7256.5	5665.9	4084.3	3001.5	2289.3	1835.5	1700.7	1772.6
10°	11064.5	10186.1	8101.3	5737.8	3563.1	1988.2	1294.0	1033.4	936.8	916.6	927.8
12.5°	11161.1	10010.9	7177.9	4079.8	1905.1	1064.9	847.0	804.3	790.8	790.8	795.3
15°	11219.5	9745.8	6083.8	2594.8	1096.3	804.3	739.1	725.7	725.7	727.9	732.4
17.5°	11212.8	9408.8	4886.4	1570.4	820.0	712.2	674.0	662.7	660.5	665.0	667.2
20°	11129.7	8968.4	3684.4	1035.7	714.4	649.3	611.1	590.9	588.6	593.1	597.6
22.5°	10972.4	8424.8	2635.3	797.5	644.8	588.6	541.4	523.5	523.5	528.0	532.4
25°	10781.5	7759.8	1801.8	676.2	581.9	523.5	478.5	462.8	467.3	478.5	480.8
27.5°	10543.3	7011.7	1224.4	579.6	505.5	458.3	424.6	413.4	424.6	440.3	444.8
30°	10338.9	6232.1	873.9	501.0	429.1	395.4	375.2	375.2	390.9	420.1	426.9
32.5°	10181.6	5477.2	674.0	442.6	372.9	343.7	332.5	343.7	368.4	397.6	404.4
35°	10161.4	4854.9	570.6	395.4	332.5	303.3	298.8	319.0	343.7	366.2	370.7
37.5°	10316.4	4279.8	514.5	357.2	296.6	269.6	265.1	289.8	314.5	341.5	348.2
40°	10610.7	3828.2	474.0	321.3	267.3	238.1	229.2	247.1	280.8	316.8	325.8
42.5°	10992.6	3455.3	429.1	285.3	238.1	197.7	186.5	206.7	242.6	280.8	292.1
45°	11356.6	3134.0	379.7	244.9	199.9	152.8	148.3	175.2	193.2	231.4	240.4
47.5°	11556.5	2850.9	337.0	199.9	155.0	123.6	123.6	130.3	148.3	193.2	202.2
50°	11489.1	2624.0	292.1	148.3	107.8	94.4	94.4	92.1	119.1	155.0	161.8
52.5°	11354.3	2493.7	251.6	114.6	74.1	67.4	60.7	67.4	83.1	98.9	101.1
55°	11334.1	2471.3	211.2	92.1	51.7	44.9	33.7	33.7	33.7	31.5	27.0
57.5°	11491.4	2507.2	177.5	74.1	38.2	29.2	18.0	0.0	0.0	0.0	0.0
60°	11653.1	2545.4	152.8	51.7	27.0	15.7	2.2	0.0	0.0	0.0	0.0
62.5°	11383.6	2460.0	128.1	31.5	20.2	6.7	0.0	0.0	0.0	0.0	0.0
65°	9999.6	2093.8	101.1	22.5	13.5	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	7112.8	1401.9	67.4	13.5	2.2	0.0	0.0	0.0	0.0	0.0	0.0
70°	3246.3	586.4	42.7	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	694.2	182.0	29.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	141.5	132.5	11.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	44.9	208.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	27.0	150.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	4.5	22.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	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	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

(END OF REPORT)