

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: P300649

Luminaire Tested: **GLNA-AF-09-LED-E1-AFL-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300649
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-09-LED-E1-AFL-7030-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K 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: 38280.2 lumens
Efficiency: N/A
Efficacy: 76.4 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

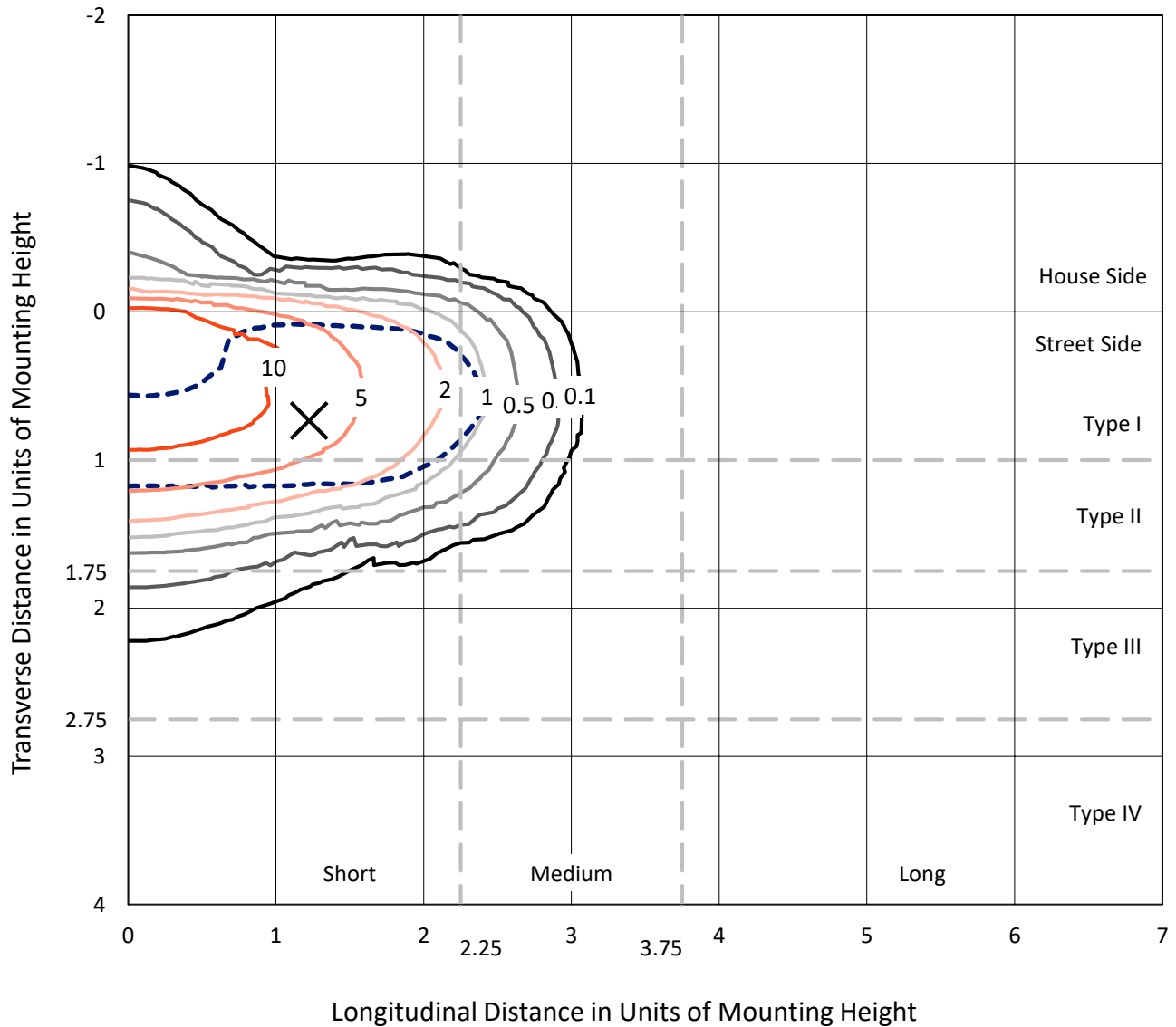
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

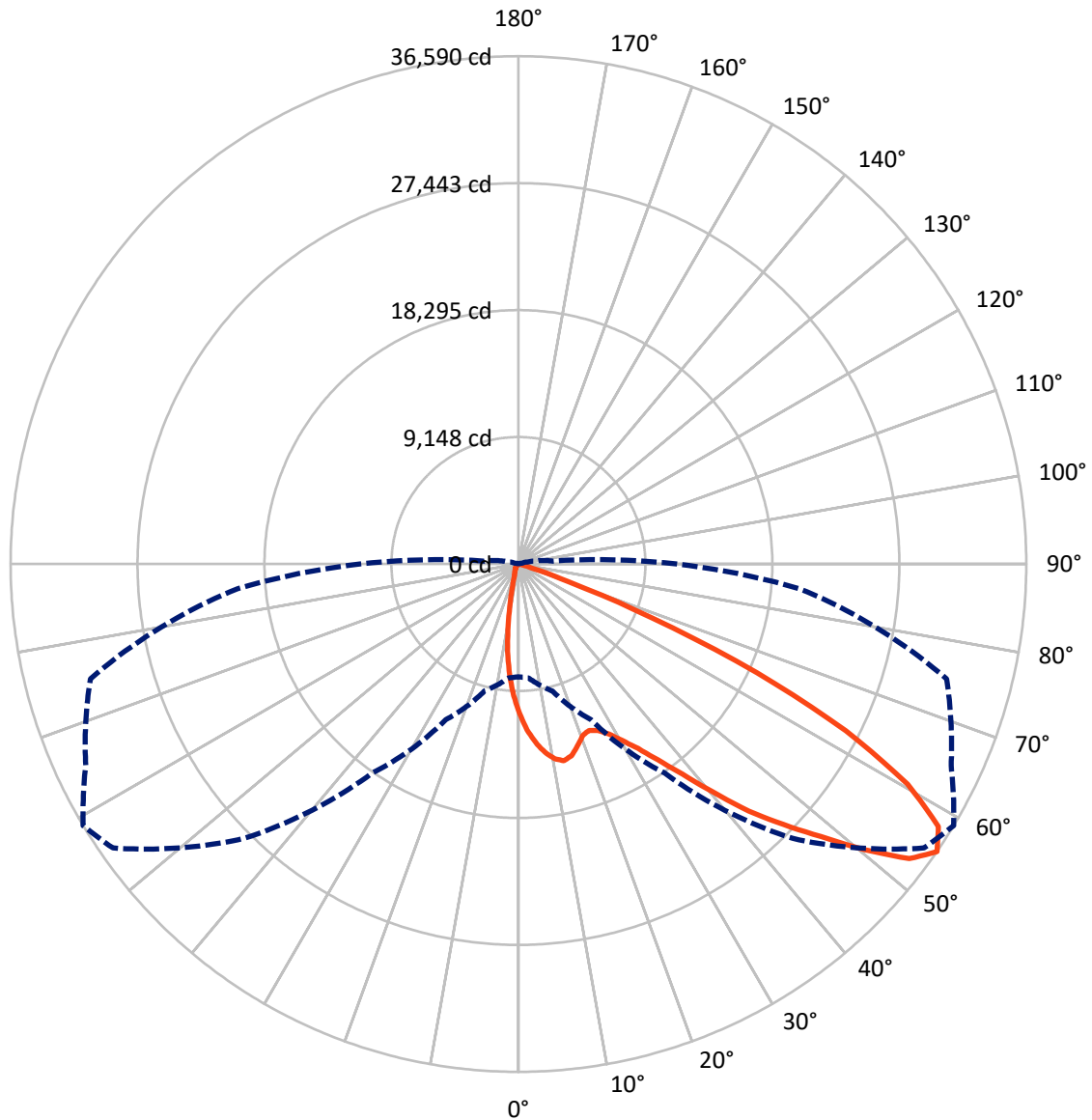
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.9 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	2138.2	0.0	2138.2
	% Fixture	5.6	0.0	5.6
Street Side	Lumens	36142.1	0.0	36142.1
	% Fixture	94.4	0.0	94.4
Total	Lumens	38280.2	0.0	38280.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	902.6	2.4
10°-20°	2161.0	5.6
20°-30°	3677.3	9.6
30°-40°	6324.1	16.5
40°-50°	9763.7	25.5
50°-60°	9815.6	25.6
60°-70°	5033.5	13.1
70°-80°	545.5	1.4
80°-90°	57.0	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°	38280.2	100.0
0°-180°	38280.2	100.0

Coefficient of Utilization



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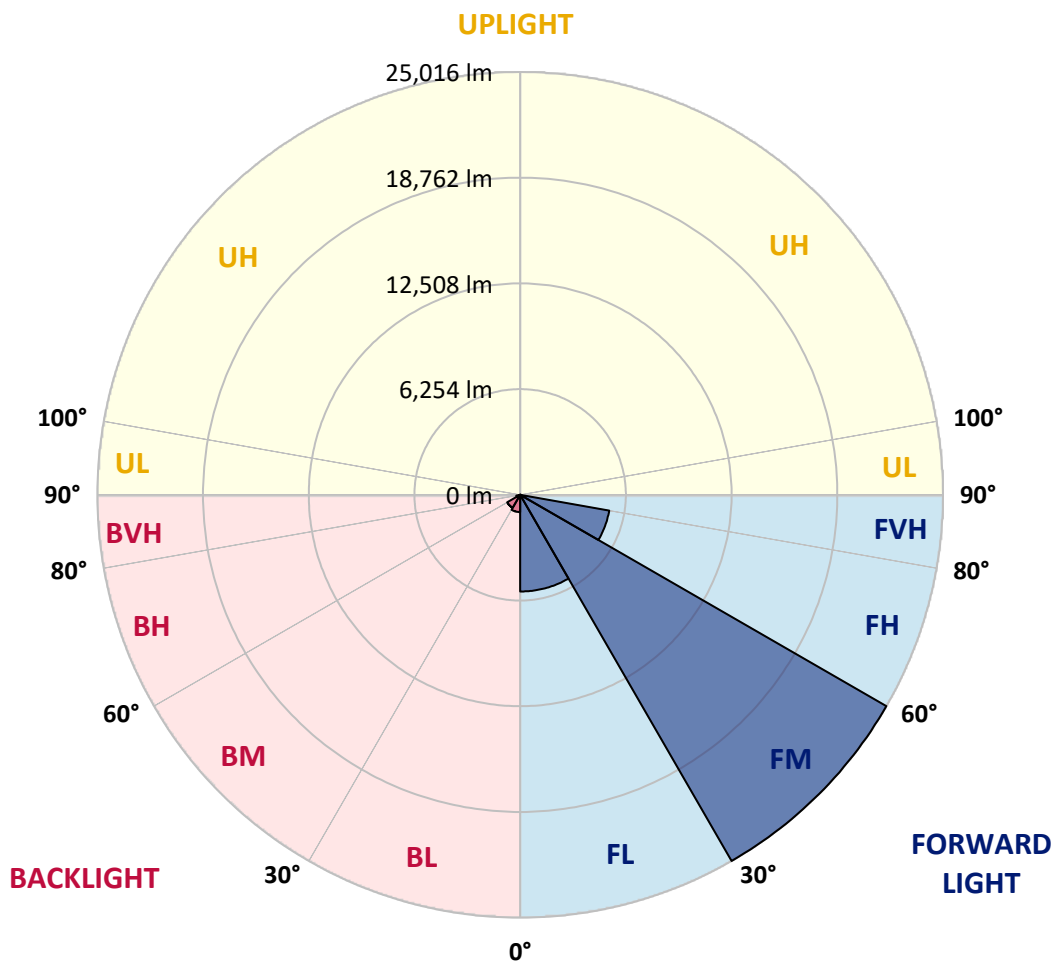
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5720.3	14.9			
FM	(30°-60°)	25016.0	65.3			
FH	(60°-80°)	5349.9	14.0			G3/7500
FVH	(80°-90°)	55.8	0.1			G1/100
BL	(0°-30°)	1020.6	2.7	B3/2500		
BM	(30°-60°)	887.4	2.3	B1/1000		
BH	(60°-80°)	229.1	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°	10775.8	10775.8	10775.8	10775.8	10775.8	10775.8	10775.8	10775.8	10775.8	10775.8	10775.8
2.5°	12750.2	12614.6	12574.0	12546.9	12422.6	12266.7	12054.4	11955.0	11751.7	11424.1	11022.0
5°	13918.1	13893.3	13802.9	13753.2	13619.9	13398.5	13059.7	12897.0	12574.0	12022.8	11302.1
7.5°	13407.6	13563.4	13687.7	13895.5	14157.6	14148.5	13863.9	13694.5	13333.0	12605.6	11613.9
10°	11435.4	11561.9	11765.2	12237.4	13199.7	14049.1	14383.5	14261.5	13972.3	13141.0	11914.3
12.5°	11049.1	11035.5	11071.7	11209.5	11713.3	12924.1	14295.4	14541.6	14482.9	13631.2	12199.0
15°	11254.7	11238.9	11234.3	11281.8	11403.8	11914.3	13633.5	14340.6	14794.6	14085.3	12440.7
17.5°	11830.7	11763.0	11726.8	11688.4	11652.3	11778.8	12838.3	13778.1	14842.1	14482.9	12641.7
20°	12817.9	12705.0	12571.7	12354.8	12151.5	12088.3	12503.9	13199.7	14672.6	14785.6	12772.8
22.5°	14058.2	13913.6	13683.2	13287.8	12874.4	12635.0	12668.8	13016.7	14419.6	15115.4	12833.8
25°	15452.0	15266.8	14959.5	14410.6	13802.9	13378.2	13156.8	13278.8	14304.4	15501.7	12903.8
27.5°	16945.3	16739.7	16337.6	15589.8	14900.8	14327.0	13875.2	13859.4	14501.0	16007.8	13016.7
30°	18425.0	18393.3	17869.2	17078.5	16165.9	15467.8	14817.2	14733.6	15049.9	16708.1	13240.4
32.5°	20399.4	20162.2	19520.6	18707.3	17654.6	16816.5	16046.2	15851.9	15892.5	17523.6	13586.0
35°	22888.9	22629.1	21725.4	20602.7	19425.7	18436.2	17584.6	17320.3	17220.9	18858.7	14168.9
37.5°	24497.3	24492.8	23925.8	22782.7	21519.9	20428.7	19502.5	19193.0	18992.0	20471.7	15072.5
40°	24540.2	24646.4	24721.0	24709.7	23810.6	22805.3	21983.0	21601.2	21133.6	22626.8	16240.4
42.5°	23223.2	23496.6	24153.9	25269.9	25803.1	25403.2	24709.7	24334.7	23638.9	24933.3	17663.6
45°	21443.1	21632.8	22782.7	24838.4	26882.9	27978.5	27449.9	26779.0	25861.8	27339.2	18940.0
47.5°	20645.6	20679.5	21422.7	23679.5	26964.2	30088.5	30409.3	29318.2	27881.4	29277.5	19938.5
50°	18262.3	18323.3	19348.9	21671.2	26010.9	31084.8	33382.2	32347.6	30084.0	30770.8	20302.2
52.5°	13764.5	13850.3	15151.6	18370.7	23390.4	30660.1	35510.3	35259.5	32496.7	31500.4	20322.6
55°	8121.3	8234.3	9476.8	12366.1	18397.8	27958.2	35668.4	36590.1	34401.1	31931.9	20290.9
57.5°	3793.0	3872.0	4583.6	6370.6	11442.2	22095.9	33287.4	35677.4	35451.5	32160.1	20514.6
60°	2015.1	2037.7	2209.4	2758.3	5171.0	14010.7	28640.5	32216.6	34493.7	32476.4	20787.9
62.5°	1540.7	1547.5	1538.4	1603.9	2173.2	6219.2	21648.6	26485.3	30637.5	32239.1	20485.2
65°	1335.1	1346.4	1283.2	1267.3	1393.8	2218.4	12860.9	18879.0	24074.9	29038.1	18422.7
67.5°	1197.3	1201.8	1125.0	1059.5	1082.1	1199.6	5073.9	10335.2	15935.5	21284.9	13353.3
70°	1102.4	1097.9	1014.3	910.4	881.0	820.0	1613.0	3788.5	7615.3	10793.8	6210.2
72.5°	975.9	978.2	937.5	802.0	731.9	573.8	747.8	1104.7	2272.6	2941.3	1454.8
75°	865.2	853.9	804.2	718.4	603.2	377.3	370.5	492.5	700.3	695.8	314.0
77.5°	625.8	614.5	630.3	589.6	463.1	244.0	185.2	237.2	284.6	275.6	88.1
80°	458.6	451.8	406.6	490.2	408.9	167.2	115.2	126.5	146.8	124.2	27.1
82.5°	314.0	311.8	286.9	271.1	232.7	101.7	72.3	79.1	94.9	70.0	13.6
85°	49.7	56.5	207.8	164.9	137.8	45.2	49.7	54.2	63.3	38.4	4.5
87.5°	0.0	0.0	97.1	85.8	27.1	18.1	29.4	31.6	31.6	20.3	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°	10775.8	10775.8	10775.8	10775.8	10775.8	10775.8	10775.8	10775.8	10775.8	10775.8	10775.8
2.5°	10816.4	10590.5	10172.6	9741.1	9341.2	8864.6	8537.0	8290.8	8006.1	7929.3	8096.5
5°	10891.0	10464.0	9564.9	8586.7	7667.3	6648.4	5869.1	5252.3	4694.3	4504.6	4676.3
7.5°	11008.4	10373.6	8907.5	7296.8	5697.4	4107.0	3018.1	2302.0	1845.7	1710.1	1782.4
10°	11125.9	10242.6	8146.2	5769.7	3582.9	1999.3	1301.2	1039.2	942.0	921.7	933.0
12.5°	11223.0	10066.4	7217.7	4102.5	1915.7	1070.8	851.7	808.7	795.2	795.2	799.7
15°	11281.8	9799.8	6117.6	2609.2	1102.4	808.7	743.2	729.7	729.7	731.9	736.5
17.5°	11275.0	9461.0	4913.5	1579.1	824.6	716.1	677.7	666.4	664.2	668.7	670.9
20°	11191.4	9018.2	3704.9	1041.4	718.4	652.9	614.5	594.1	591.9	596.4	600.9
22.5°	11033.3	8471.5	2649.9	802.0	648.4	591.9	544.4	526.4	526.4	530.9	535.4
25°	10841.3	7802.8	1811.8	680.0	585.1	526.4	481.2	465.4	469.9	481.2	483.4
27.5°	10601.8	7050.5	1231.2	582.8	508.3	460.8	427.0	415.7	427.0	442.8	447.3
30°	10396.2	6266.7	878.8	503.8	431.5	397.6	377.3	377.3	393.1	422.4	429.2
32.5°	10238.1	5507.6	677.7	445.0	375.0	345.6	334.3	345.6	370.5	399.9	406.6
35°	10217.8	4881.8	573.8	397.6	334.3	305.0	300.5	320.8	345.6	368.2	372.7
37.5°	10373.6	4303.5	517.3	359.2	298.2	271.1	266.6	291.4	316.3	343.4	350.2
40°	10669.6	3849.5	476.7	323.0	268.8	239.5	230.4	248.5	282.4	318.5	327.6
42.5°	11053.6	3474.4	431.5	286.9	239.5	198.8	187.5	207.8	244.0	282.4	293.7
45°	11419.6	3151.4	381.8	246.2	201.1	153.6	149.1	176.2	194.3	232.7	241.7
47.5°	11620.6	2866.8	338.9	201.1	155.9	124.2	124.2	131.0	149.1	194.3	203.3
50°	11552.9	2638.6	293.7	149.1	108.4	94.9	94.9	92.6	119.7	155.9	162.7
52.5°	11417.3	2507.6	253.0	115.2	74.5	67.8	61.0	67.8	83.6	99.4	101.7
55°	11397.0	2485.0	212.4	92.6	52.0	45.2	33.9	33.9	33.9	31.6	27.1
57.5°	11555.1	2521.1	178.5	74.5	38.4	29.4	18.1	0.0	0.0	0.0	0.0
60°	11717.8	2559.5	153.6	52.0	27.1	15.8	2.3	0.0	0.0	0.0	0.0
62.5°	11446.7	2473.7	128.8	31.6	20.3	6.8	0.0	0.0	0.0	0.0	0.0
65°	10055.1	2105.5	101.7	22.6	13.6	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	7152.2	1409.7	67.8	13.6	2.3	0.0	0.0	0.0	0.0	0.0	0.0
70°	3264.4	589.6	42.9	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	698.1	183.0	29.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	142.3	133.3	11.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	45.2	210.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	27.1	151.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	4.5	22.6	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)