

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: P300640

Luminaire Tested: **GLNA-AF-07-LED-E1-AFL-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300640
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-07-LED-E1-AFL-7050-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 5000K 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: 31311.7 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

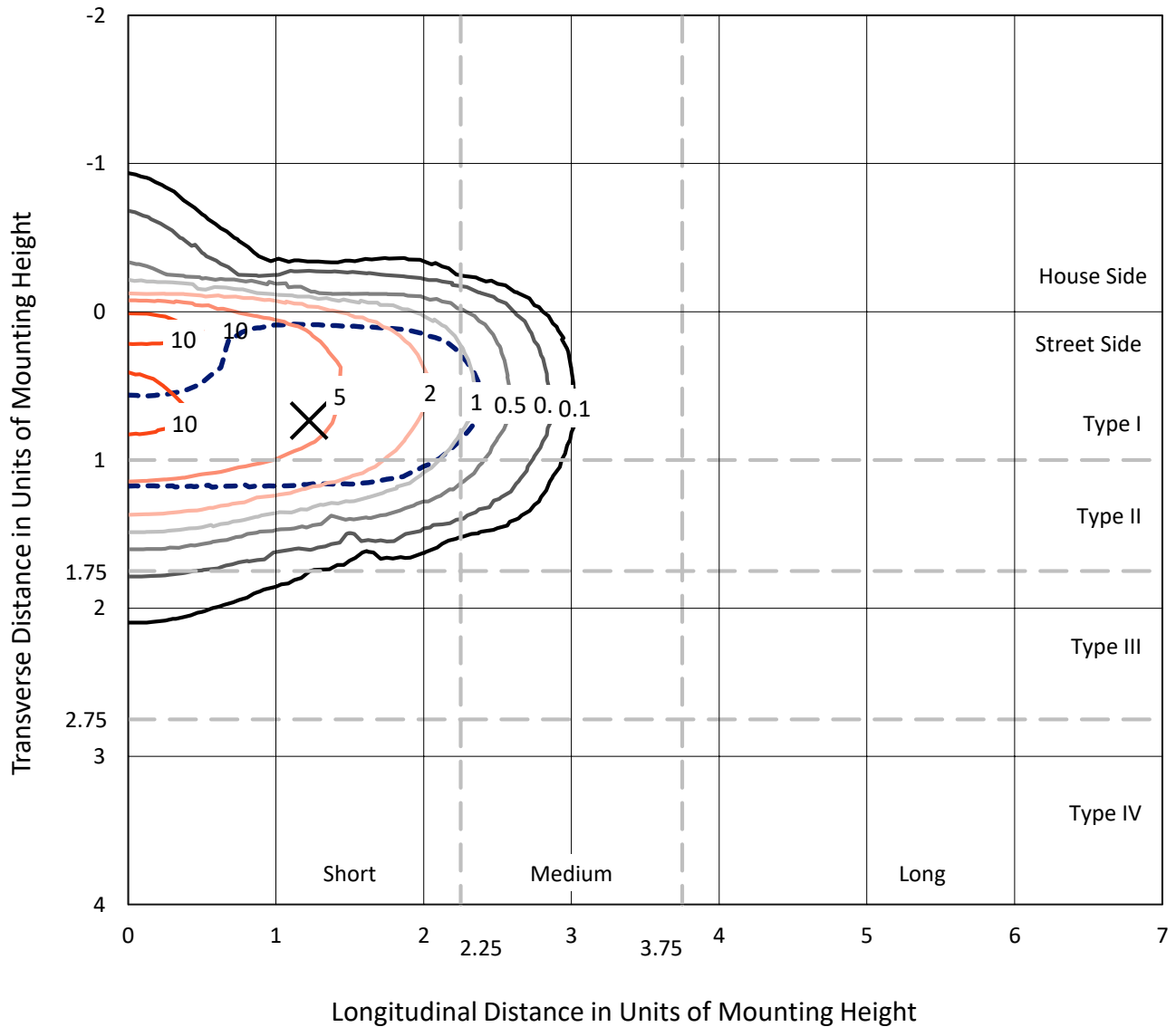
Input Watts (W): 391
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

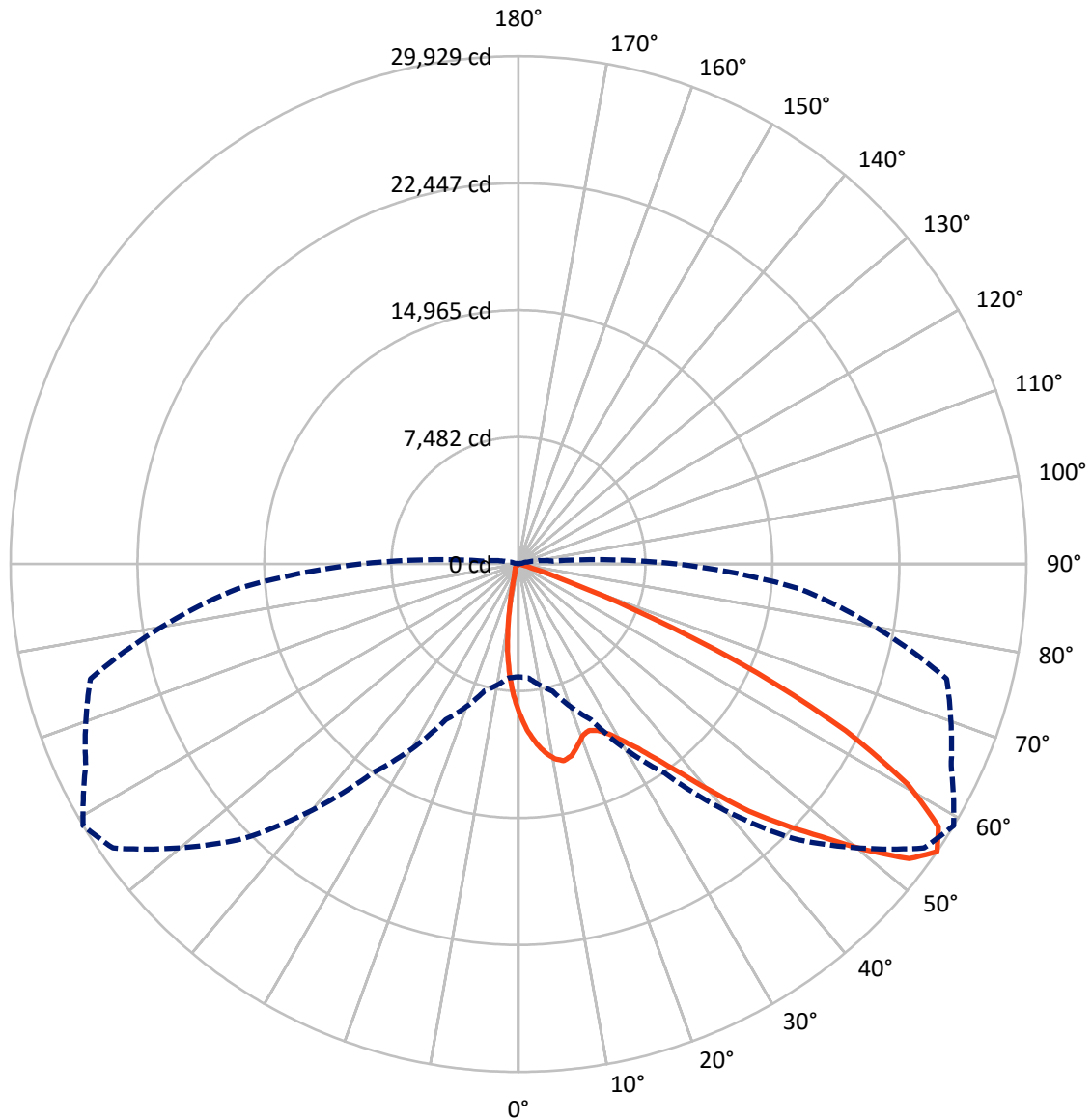
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.2 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	1748.9	0.0	1748.9
	% Fixture	5.6	0.0	5.6
Street Side	Lumens	29562.8	0.0	29562.8
	% Fixture	94.4	0.0	94.4
Total	Lumens	31311.7	0.0	31311.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	738.3	2.4
10°-20°	1767.6	5.6
20°-30°	3007.8	9.6
30°-40°	5172.8	16.5
40°-50°	7986.3	25.5
50°-60°	8028.8	25.6
60°-70°	4117.2	13.1
70°-80°	446.2	1.4
80°-90°	46.6	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°	31311.7	100.0
0°-180°	31311.7	100.0



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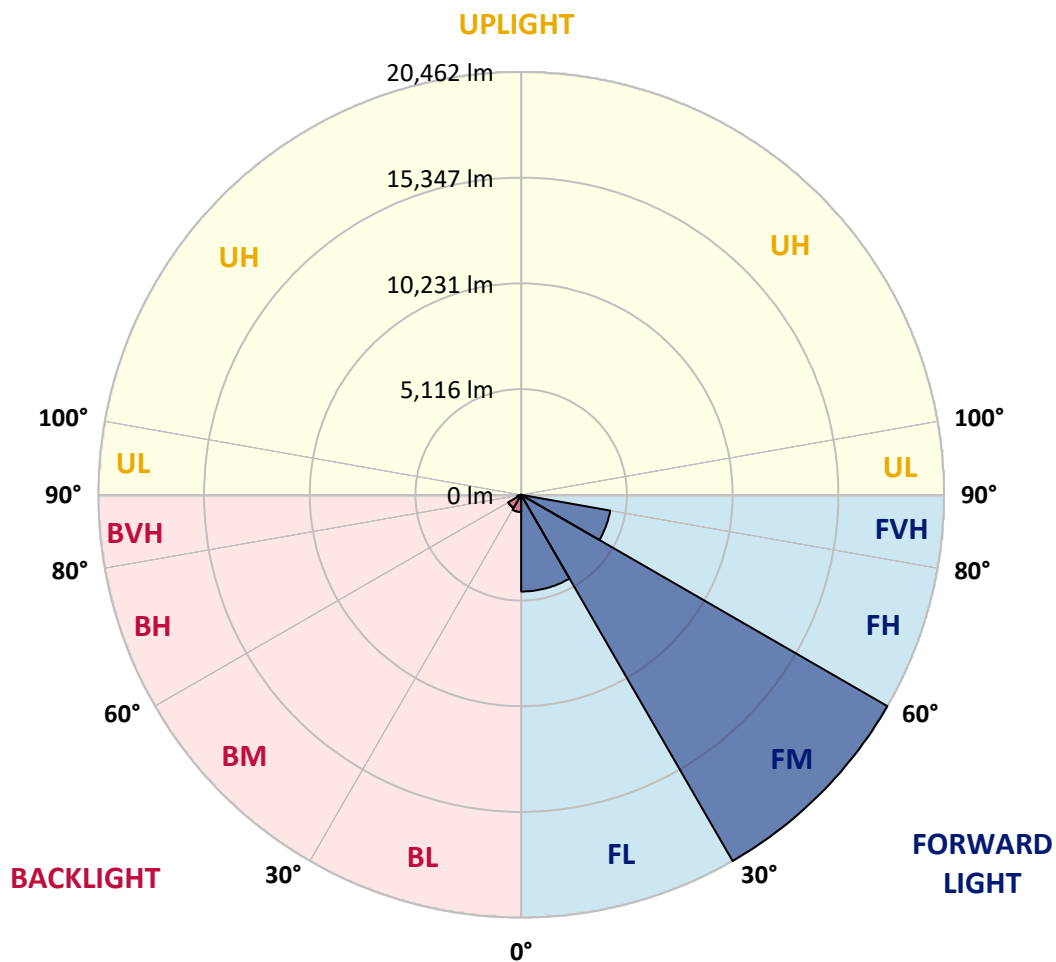
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4679.0	14.9			
FM (30°-60°)	20462.1	65.3			
FH (60°-80°)	4376.0	14.0			G2/5000
FVH (80°-90°)	45.7	0.1			G1/100
BL (0°-30°)	834.8	2.7	B2/1000		
BM (30°-60°)	725.8	2.3	B1/1000		
BH (60°-80°)	187.4	0.6	B1/500		G1/500
BVH (80°-90°)	1.0	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	8814.1	8814.1	8814.1	8814.1	8814.1	8814.1	8814.1	8814.1	8814.1	8814.1	8814.1
2.5°	10429.1	10318.3	10285.0	10262.8	10161.2	10033.7	9860.0	9778.7	9612.4	9344.5	9015.5
5°	11384.5	11364.1	11290.2	11249.6	11140.5	10959.5	10682.3	10549.2	10285.0	9834.1	9244.7
7.5°	10966.8	11094.3	11196.0	11366.0	11580.3	11572.9	11340.1	11201.5	10905.9	10310.9	9499.7
10°	9353.7	9457.2	9623.5	10009.7	10796.8	11491.6	11765.1	11665.3	11428.8	10748.8	9745.4
12.5°	9037.7	9026.6	9056.2	9168.9	9581.0	10571.4	11693.0	11894.5	11846.4	11149.8	9978.3
15°	9205.9	9192.9	9189.2	9228.0	9327.8	9745.4	11151.6	11730.0	12101.4	11521.2	10176.0
17.5°	9677.1	9621.6	9592.1	9560.6	9531.1	9634.6	10501.2	11269.9	12140.2	11846.4	10340.4
20°	10484.6	10392.2	10283.1	10105.8	9939.5	9887.7	10227.7	10796.8	12001.6	12094.0	10447.6
22.5°	11499.0	11380.8	11192.3	10868.9	10530.8	10334.9	10362.6	10647.2	11794.7	12363.8	10497.5
25°	12639.1	12487.6	12236.3	11787.3	11290.2	10942.8	10761.7	10861.5	11700.4	12679.8	10554.8
27.5°	13860.5	13692.4	13363.5	12751.8	12188.3	11718.9	11349.3	11336.4	11861.2	13093.7	10647.2
30°	15070.9	15045.0	14616.3	13969.6	13223.0	12652.1	12119.9	12051.5	12310.2	13666.5	10830.1
32.5°	16685.9	16491.8	15967.1	15301.8	14440.8	13755.2	13125.1	12966.2	12999.4	14333.6	11112.8
35°	18722.2	18509.7	17770.5	16852.2	15889.4	15080.1	14383.5	14167.3	14086.0	15425.6	11589.6
37.5°	20037.8	20034.1	19570.3	18635.3	17602.4	16709.9	15952.3	15699.1	15534.7	16745.0	12328.7
40°	20072.9	20159.8	20220.8	20211.5	19476.1	18653.8	17981.2	17668.9	17286.4	18507.8	13284.0
42.5°	18995.6	19219.2	19756.9	20669.8	21105.9	20778.8	20211.5	19904.8	19335.6	20394.4	14448.1
45°	17539.6	17694.8	18635.3	20316.8	21989.1	22885.3	22452.9	21904.1	21153.9	22362.4	15492.2
47.5°	16887.3	16915.0	17522.9	19368.9	22055.6	24611.2	24873.6	23981.1	22805.9	23947.8	16308.9
50°	14937.8	14987.7	15826.6	17726.2	21275.9	25426.1	27305.3	26459.0	24607.5	25169.2	16606.4
52.5°	11258.8	11329.0	12393.4	15026.5	19132.4	25078.7	29046.0	28840.9	26581.0	25766.1	16623.0
55°	6642.9	6735.3	7751.6	10115.0	15048.7	22868.7	29175.3	29929.2	28138.7	26119.0	16597.2
57.5°	3102.5	3167.2	3749.2	5210.9	9359.2	18073.6	27227.7	29182.7	28997.9	26305.6	16780.1
60°	1648.3	1666.7	1807.2	2256.2	4229.7	11460.2	23426.7	26351.8	28214.4	26564.3	17003.7
62.5°	1260.2	1265.8	1258.4	1312.0	1777.6	5087.1	17707.7	21663.9	25060.2	26370.3	16756.1
65°	1092.1	1101.3	1049.6	1036.6	1140.1	1814.6	10519.7	15442.3	19692.3	23751.9	15069.0
67.5°	979.3	983.0	920.2	866.6	885.1	981.2	4150.2	8453.8	13034.6	17410.2	10922.5
70°	901.7	898.0	829.7	744.7	720.7	670.8	1319.3	3098.8	6229.0	8828.9	5079.7
72.5°	798.3	800.1	766.8	656.0	598.7	469.3	611.6	903.6	1858.9	2405.9	1190.0
75°	707.7	698.5	657.8	587.6	493.4	308.6	303.0	402.8	572.8	569.1	256.8
77.5°	511.8	502.6	515.5	482.3	378.8	199.6	151.5	194.0	232.8	225.4	72.1
80°	375.1	369.6	332.6	401.0	334.5	136.7	94.2	103.5	120.1	101.6	22.2
82.5°	256.8	255.0	234.7	221.7	190.3	83.2	59.1	64.7	77.6	57.3	11.1
85°	40.7	46.2	170.0	134.9	112.7	37.0	40.7	44.3	51.7	31.4	3.7
87.5°	0.0	0.0	79.5	70.2	22.2	14.8	24.0	25.9	25.9	16.6	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°	8814.1	8814.1	8814.1	8814.1	8814.1	8814.1	8814.1	8814.1	8814.1	8814.1	8814.1
2.5°	8847.4	8662.6	8320.8	7967.8	7640.8	7250.9	6982.9	6781.5	6548.7	6485.9	6622.6
5°	8908.4	8559.1	7823.7	7023.6	6271.5	5438.1	4800.6	4296.2	3839.8	3684.6	3825.0
7.5°	9004.5	8485.2	7286.0	5968.5	4660.2	3359.3	2468.7	1882.9	1509.7	1398.8	1457.9
10°	9100.5	8378.0	6663.3	4719.3	2930.7	1635.3	1064.3	850.0	770.5	753.9	763.2
12.5°	9180.0	8233.9	5903.8	3355.7	1567.0	875.9	696.6	661.5	650.4	650.4	654.1
15°	9228.0	8015.9	5003.9	2134.2	901.7	661.5	607.9	596.8	596.8	598.7	602.4
17.5°	9222.5	7738.7	4019.0	1291.6	674.5	585.8	554.3	545.1	543.3	547.0	548.8
20°	9154.1	7376.5	3030.4	851.8	587.6	534.0	502.6	486.0	484.1	487.8	491.5
22.5°	9024.8	6929.3	2167.5	656.0	530.3	484.1	445.3	430.5	430.5	434.2	437.9
25°	8867.7	6382.4	1482.0	556.2	478.6	430.5	393.6	380.7	384.3	393.6	395.4
27.5°	8671.8	5767.1	1007.1	476.7	415.8	377.0	349.2	340.0	349.2	362.2	365.9
30°	8503.7	5125.9	718.8	412.1	352.9	325.2	308.6	308.6	321.5	345.5	351.1
32.5°	8374.3	4505.0	554.3	364.0	306.7	282.7	273.5	282.7	303.0	327.1	332.6
35°	8357.7	3993.2	469.3	325.2	273.5	249.5	245.8	262.4	282.7	301.2	304.9
37.5°	8485.2	3520.1	423.2	293.8	243.9	221.7	218.0	238.4	258.7	280.9	286.4
40°	8727.3	3148.7	389.9	264.2	219.9	195.9	188.5	203.3	231.0	260.5	267.9
42.5°	9041.4	2842.0	352.9	234.7	195.9	162.6	153.4	170.0	199.6	231.0	240.2
45°	9340.8	2577.7	312.3	201.4	164.5	125.7	122.0	144.1	158.9	190.3	197.7
47.5°	9505.2	2344.9	277.2	164.5	127.5	101.6	101.6	107.2	122.0	158.9	166.3
50°	9449.8	2158.3	240.2	122.0	88.7	77.6	77.6	75.8	97.9	127.5	133.0
52.5°	9338.9	2051.1	207.0	94.2	61.0	55.4	49.9	55.4	68.4	81.3	83.2
55°	9322.3	2032.6	173.7	75.8	42.5	37.0	27.7	27.7	27.7	25.9	22.2
57.5°	9451.6	2062.2	146.0	61.0	31.4	24.0	14.8	0.0	0.0	0.0	0.0
60°	9584.7	2093.6	125.7	42.5	22.2	12.9	1.8	0.0	0.0	0.0	0.0
62.5°	9362.9	2023.4	105.3	25.9	16.6	5.5	0.0	0.0	0.0	0.0	0.0
65°	8224.7	1722.2	83.2	18.5	11.1	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	5850.2	1153.0	55.4	11.1	1.8	0.0	0.0	0.0	0.0	0.0	0.0
70°	2670.1	482.3	35.1	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	571.0	149.7	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	116.4	109.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	37.0	171.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	22.2	123.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	3.7	18.5	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)