

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: P300624

Luminaire Tested: **GLNA-AF-05-LED-E1-AFL-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300624
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-05-LED-E1-AFL-7027-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 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: 19223.2 lumens
Efficiency: N/A
Efficacy: 68.9 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 279
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

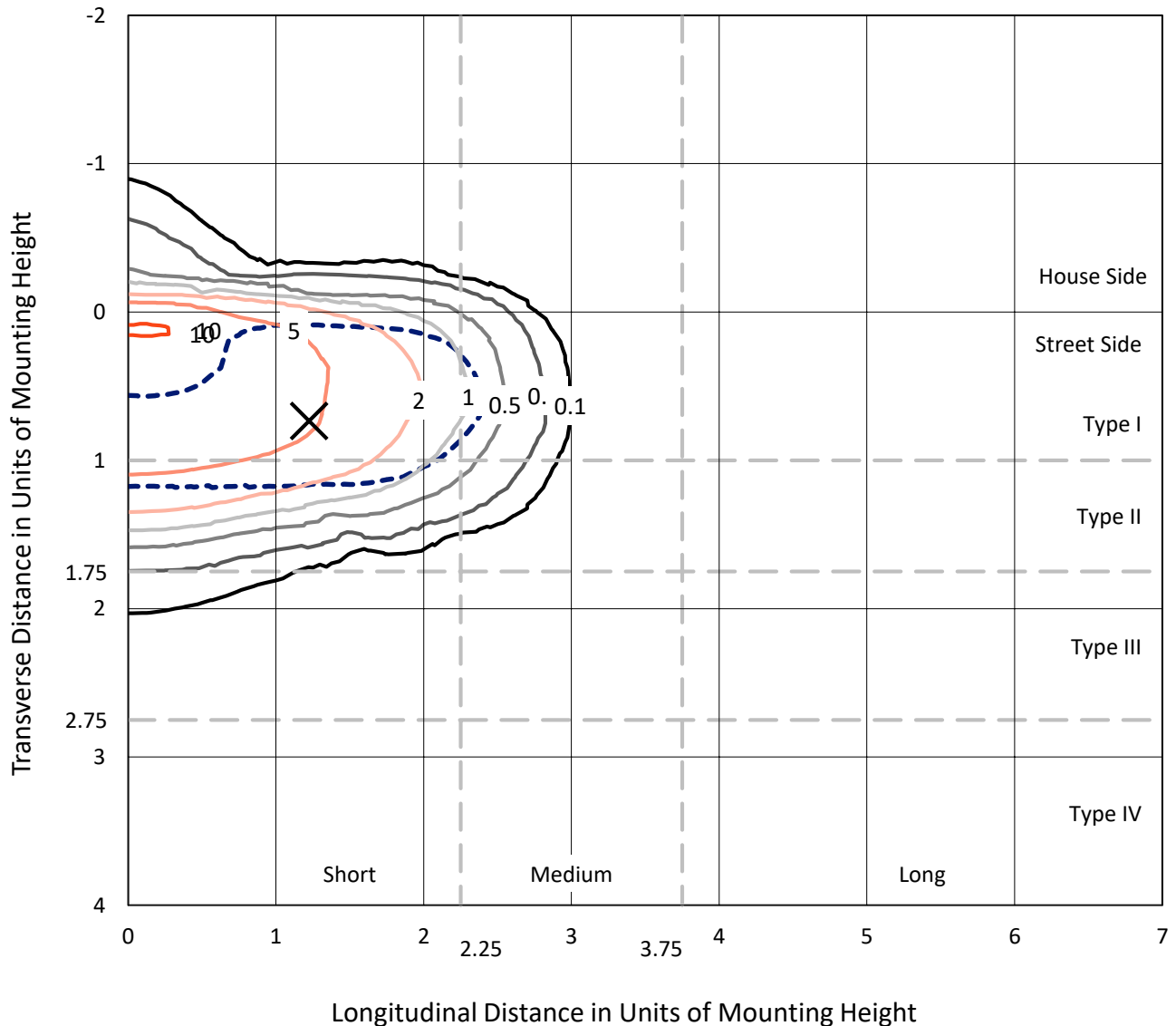


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Iso-Footcandle Lines of Horizontal Illumination

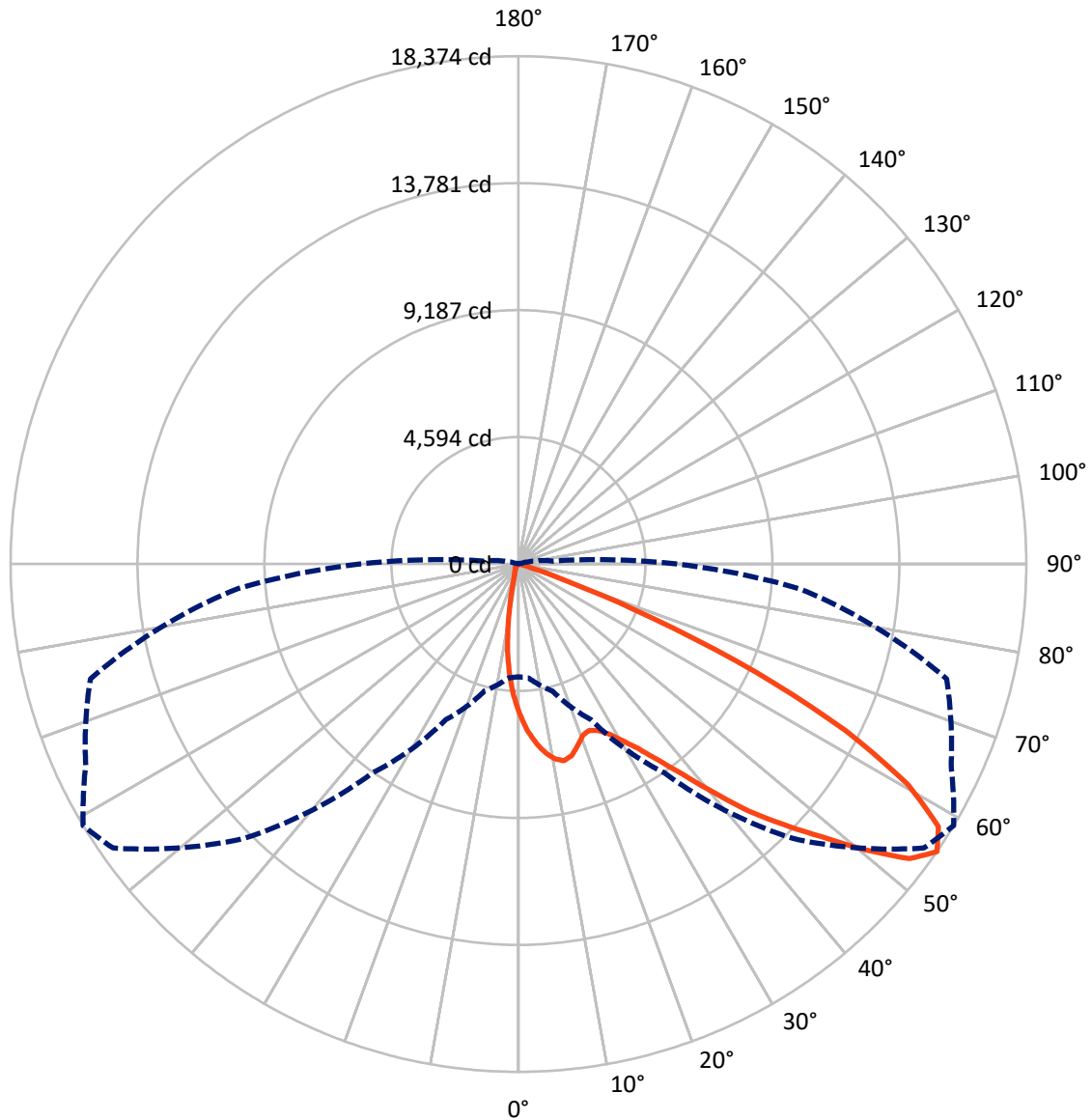
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.8 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	1073.7	0.0	1073.7
	% Fixture	5.6	0.0	5.6
Street Side	Lumens	18149.5	0.0	18149.5
	% Fixture	94.4	0.0	94.4
Total	Lumens	19223.2	0.0	19223.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	453.2	2.4
10°-20°	1085.2	5.6
20°-30°	1846.6	9.6
30°-40°	3175.8	16.5
40°-50°	4903.0	25.5
50°-60°	4929.1	25.6
60°-70°	2527.7	13.1
70°-80°	273.9	1.4
80°-90°	28.6	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°	19223.2	100.0
0°-180°	19223.2	100.0

Coefficient of Utilization



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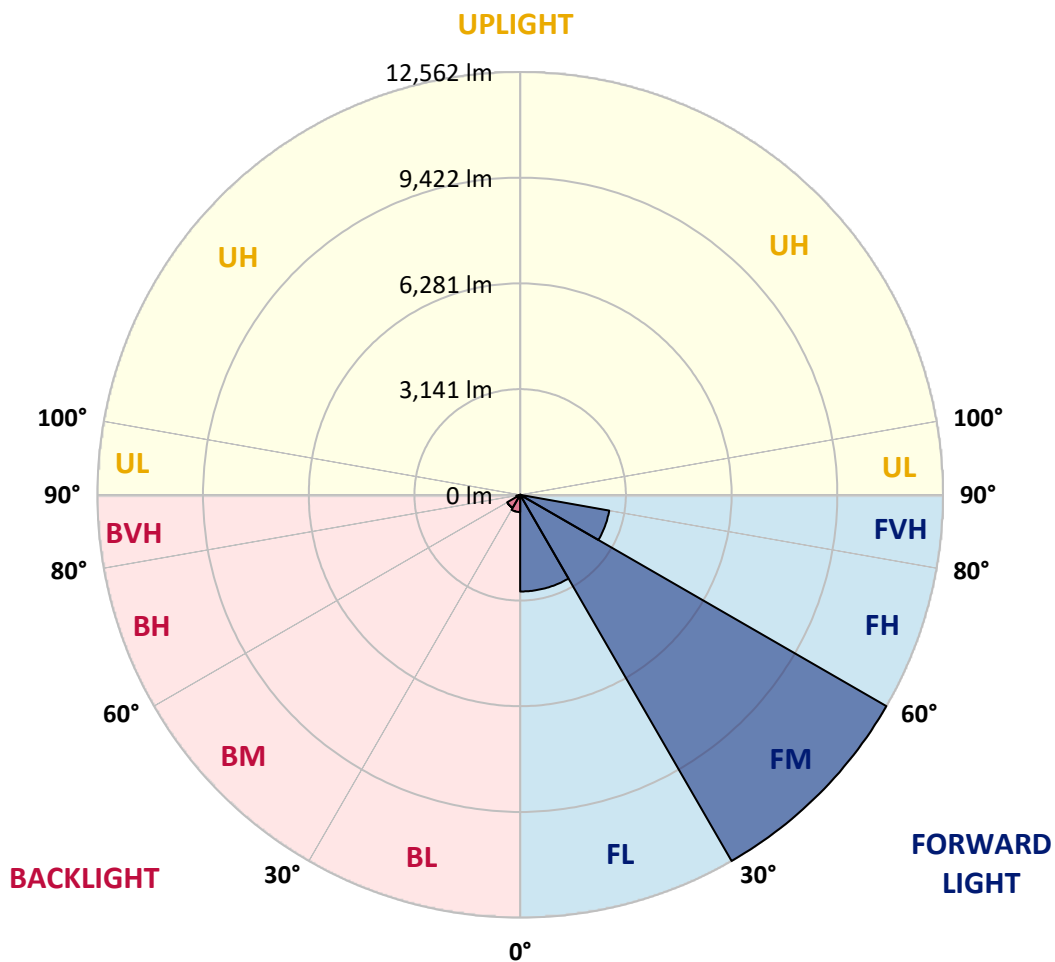
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2872.6	14.9			
FM (30°-60°)	12562.3	65.3			
FH (60°-80°)	2686.6	14.0			G2/5000
FVH (80°-90°)	28.0	0.1			G1/100
BL (0°-30°)	512.5	2.7	B2/1000		
BM (30°-60°)	445.6	2.3	B1/1000		
BH (60°-80°)	115.0	0.6	B1/500		G1/500
BVH (80°-90°)	0.6	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°	5411.3	5411.3	5411.3	5411.3	5411.3	5411.3	5411.3	5411.3	5411.3	5411.3	5411.3
2.5°	6402.8	6334.7	6314.3	6300.7	6238.3	6160.0	6053.3	6003.4	5901.3	5736.8	5534.9
5°	6989.3	6976.8	6931.4	6906.4	6839.5	6728.3	6558.2	6476.5	6314.3	6037.5	5675.6
7.5°	6732.9	6811.1	6873.5	6977.9	7109.5	7105.0	6962.0	6876.9	6695.4	6330.1	5832.1
10°	5742.5	5806.0	5908.1	6145.2	6628.5	7055.1	7222.9	7161.7	7016.5	6599.0	5983.0
12.5°	5548.5	5541.7	5559.9	5629.1	5882.0	6490.1	7178.7	7302.4	7272.9	6845.2	6126.0
15°	5651.8	5643.8	5641.5	5665.4	5726.6	5983.0	6846.3	7201.4	7429.4	7073.2	6247.3
17.5°	5941.0	5907.0	5888.9	5869.6	5851.4	5914.9	6447.0	6918.9	7453.2	7272.9	6348.3
20°	6436.8	6380.1	6313.1	6204.2	6102.1	6070.4	6279.1	6628.5	7368.2	7424.9	6414.1
22.5°	7059.6	6987.0	6871.3	6672.7	6465.1	6344.9	6361.9	6536.6	7241.1	7590.5	6444.7
25°	7759.5	7666.5	7512.2	7236.6	6931.4	6718.1	6607.0	6668.2	7183.2	7784.5	6479.9
27.5°	8509.4	8406.2	8204.2	7828.7	7482.7	7194.6	6967.7	6959.8	7281.9	8038.6	6536.6
30°	9252.5	9236.6	8973.4	8576.3	8118.0	7767.5	7440.8	7398.8	7557.6	8390.3	6648.9
32.5°	10244.0	10124.8	9802.7	9394.3	8865.6	8444.7	8057.9	7960.3	7980.8	8799.8	6822.5
35°	11494.1	11363.6	10909.9	10346.1	9755.0	9258.1	8830.4	8697.7	8647.8	9470.3	7115.2
37.5°	12301.8	12299.5	12014.8	11440.8	10806.6	10258.7	9793.6	9638.2	9537.2	10280.3	7569.0
40°	12323.4	12376.7	12414.1	12408.5	11956.9	11452.1	11039.2	10847.5	10612.6	11362.5	8155.5
42.5°	11662.0	11799.3	12129.4	12689.8	12957.5	12756.7	12408.5	12220.1	11870.7	12520.8	8870.1
45°	10768.1	10863.4	11440.8	12473.1	13499.8	14050.0	13784.5	13447.6	12987.0	13728.9	9511.1
47.5°	10367.6	10384.6	10757.9	11891.2	13540.6	15109.5	15270.6	14722.7	14001.2	14702.3	10012.5
50°	9170.8	9201.4	9716.4	10882.6	13061.9	15609.8	16763.6	16244.0	15107.3	15452.1	10195.2
52.5°	6912.1	6955.2	7608.7	9225.2	11745.9	15396.6	17832.2	17706.3	16318.9	15818.6	10205.4
55°	4078.3	4135.0	4759.0	6209.9	9238.8	14039.8	17911.6	18374.4	17275.2	16035.2	10189.5
57.5°	1904.7	1944.4	2301.8	3199.1	5745.9	11095.9	16715.9	17916.1	17802.7	16149.8	10301.8
60°	1011.9	1023.3	1109.5	1385.1	2596.7	7035.8	14382.4	16178.2	17321.7	16308.6	10439.1
62.5°	773.7	777.1	772.6	805.4	1091.3	3123.1	10871.3	13300.1	15385.2	16189.5	10287.1
65°	670.5	676.1	644.4	636.4	699.9	1114.0	6458.3	9480.5	12089.7	14582.0	9251.3
67.5°	601.3	603.5	564.9	532.1	543.4	602.4	2547.9	5190.0	8002.3	10688.6	6705.6
70°	553.6	551.3	509.4	457.2	442.4	411.8	810.0	1902.4	3824.2	5420.3	3118.6
72.5°	490.1	491.2	470.8	402.7	367.6	288.1	375.5	554.7	1141.2	1477.0	730.6
75°	434.5	428.8	403.9	360.8	302.9	189.5	186.0	247.3	351.7	349.4	157.7
77.5°	314.2	308.6	316.5	296.1	232.6	122.5	93.0	119.1	142.9	138.4	44.2
80°	230.3	226.9	204.2	246.2	205.3	83.9	57.9	63.5	73.7	62.4	13.6
82.5°	157.7	156.6	144.1	136.1	116.8	51.0	36.3	39.7	47.6	35.2	6.8
85°	25.0	28.4	104.4	82.8	69.2	22.7	25.0	27.2	31.8	19.3	2.3
87.5°	0.0	0.0	48.8	43.1	13.6	9.1	14.7	15.9	15.9	10.2	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°	5411.3	5411.3	5411.3	5411.3	5411.3	5411.3	5411.3	5411.3	5411.3	5411.3	5411.3
2.5°	5431.7	5318.2	5108.4	4891.7	4690.9	4451.5	4287.0	4163.4	4020.4	3981.9	4065.8
5°	5469.1	5254.7	4803.2	4312.0	3850.3	3338.6	2947.3	2637.6	2357.4	2262.1	2348.3
7.5°	5528.1	5209.3	4473.1	3664.2	2861.0	2062.4	1515.6	1156.0	926.8	858.8	895.1
10°	5587.1	5143.5	4090.8	2897.3	1799.2	1004.0	653.4	521.8	473.1	462.8	468.5
12.5°	5635.9	5055.0	3624.5	2060.1	962.0	537.7	427.7	406.1	399.3	399.3	401.6
15°	5665.4	4921.2	3072.1	1310.3	553.6	406.1	373.2	366.4	366.4	367.6	369.8
17.5°	5662.0	4751.0	2467.4	793.0	414.1	359.6	340.3	334.7	333.5	335.8	336.9
20°	5620.0	4528.7	1860.5	523.0	360.8	327.9	308.6	298.4	297.2	299.5	301.8
22.5°	5540.6	4254.1	1330.7	402.7	325.6	297.2	273.4	264.3	264.3	266.6	268.9
25°	5444.2	3918.3	909.8	341.5	293.8	264.3	241.6	233.7	236.0	241.6	242.8
27.5°	5323.9	3540.6	618.3	292.7	255.2	231.4	214.4	208.7	214.4	222.3	224.6
30°	5220.7	3146.9	441.3	253.0	216.7	199.7	189.5	189.5	197.4	212.1	215.5
32.5°	5141.3	2765.8	340.3	223.5	188.3	173.6	167.9	173.6	186.0	200.8	204.2
35°	5131.1	2451.5	288.1	199.7	167.9	153.1	150.9	161.1	173.6	184.9	187.2
37.5°	5209.3	2161.1	259.8	180.4	149.7	136.1	133.9	146.3	158.8	172.4	175.8
40°	5357.9	1933.1	239.4	162.2	135.0	120.3	115.7	124.8	141.8	160.0	164.5
42.5°	5550.8	1744.8	216.7	144.1	120.3	99.8	94.2	104.4	122.5	141.8	147.5
45°	5734.6	1582.5	191.7	123.7	101.0	77.1	74.9	88.5	97.6	116.8	121.4
47.5°	5835.5	1439.6	170.2	101.0	78.3	62.4	62.4	65.8	74.9	97.6	102.1
50°	5801.5	1325.0	147.5	74.9	54.5	47.6	47.6	46.5	60.1	78.3	81.7
52.5°	5733.4	1259.2	127.1	57.9	37.4	34.0	30.6	34.0	42.0	49.9	51.0
55°	5723.2	1247.9	106.6	46.5	26.1	22.7	17.0	17.0	17.0	15.9	13.6
57.5°	5802.6	1266.0	89.6	37.4	19.3	14.7	9.1	0.0	0.0	0.0	0.0
60°	5884.3	1285.3	77.1	26.1	13.6	7.9	1.1	0.0	0.0	0.0	0.0
62.5°	5748.2	1242.2	64.7	15.9	10.2	3.4	0.0	0.0	0.0	0.0	0.0
65°	5049.4	1057.3	51.0	11.3	6.8	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	3591.6	707.9	34.0	6.8	1.1	0.0	0.0	0.0	0.0	0.0	0.0
70°	1639.3	296.1	21.6	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	350.5	91.9	14.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	71.5	66.9	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	22.7	105.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	13.6	76.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	2.3	11.3	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)