

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: P300616

Luminaire Tested: **GLNA-AF-03-LED-E1-AFL-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300616
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-03-LED-E1-AFL-7050-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 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: 13514.6 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 166
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

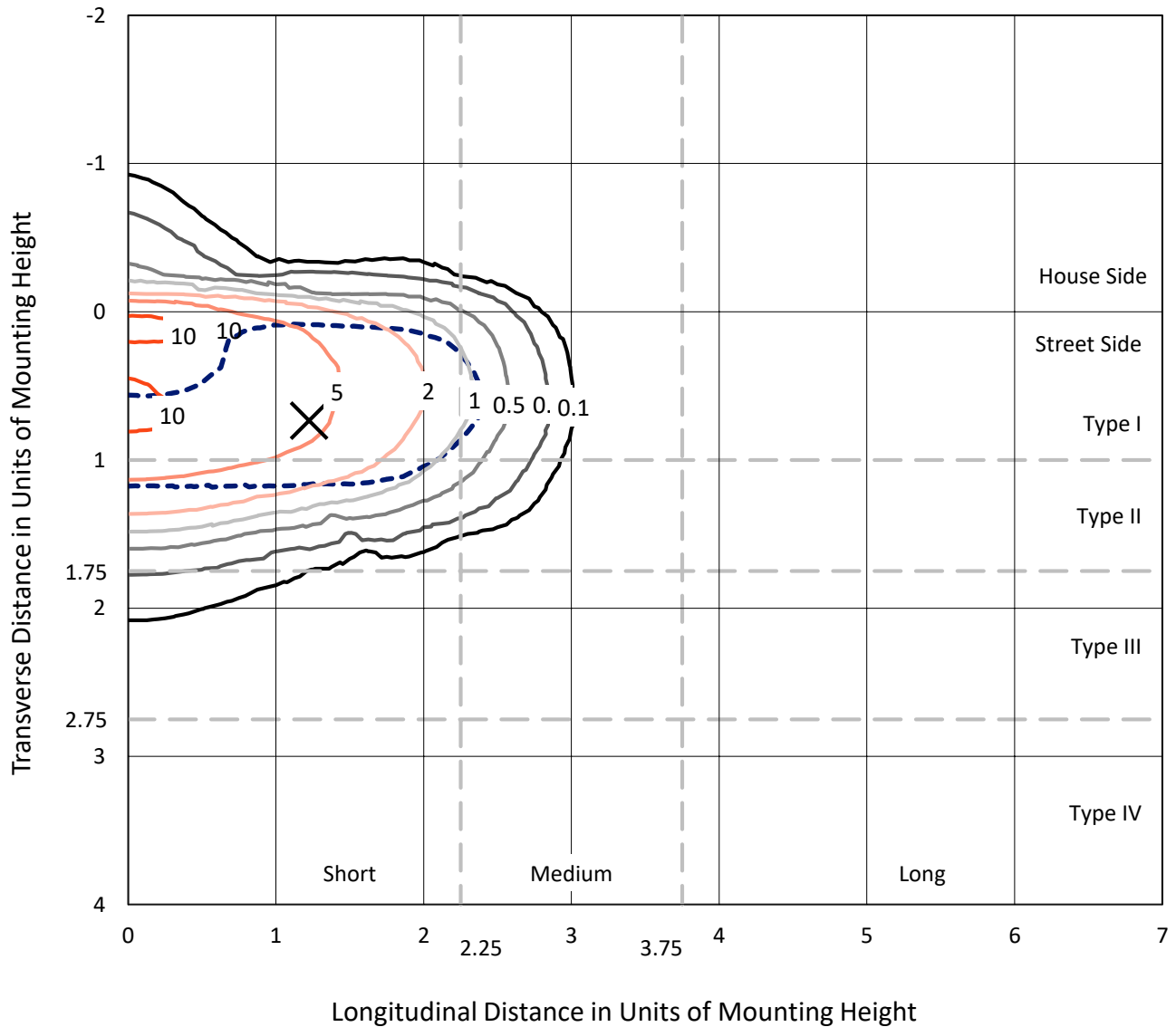


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Iso-Footcandle Lines of Horizontal Illumination

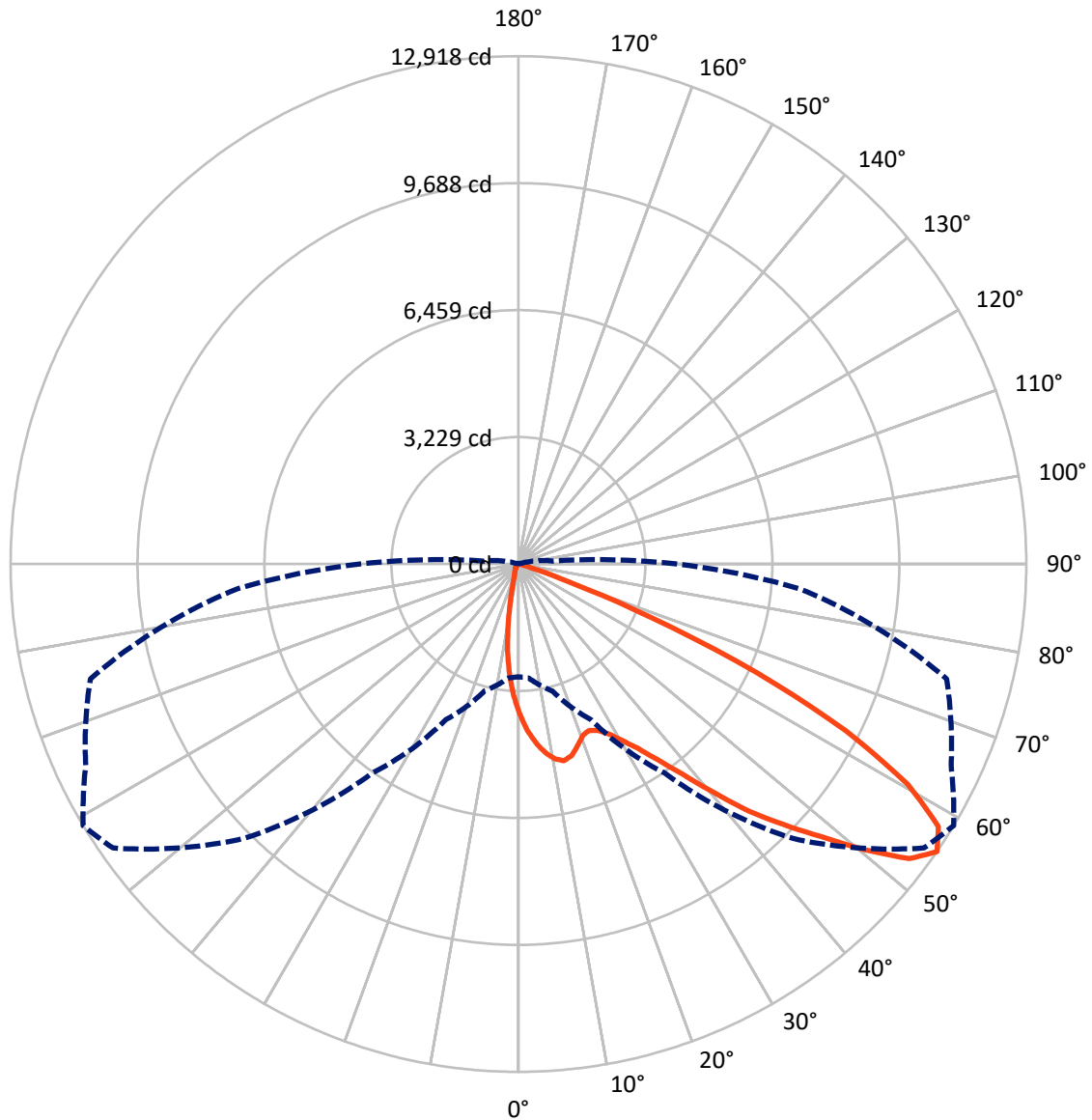
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 11.8 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	754.9	0.0	754.9
	% Fixture	5.6	0.0	5.6
Street Side	Lumens	12759.7	0.0	12759.7
	% Fixture	94.4	0.0	94.4
Total	Lumens	13514.6	0.0	13514.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	318.6	2.4
10°-20°	762.9	5.6
20°-30°	1298.2	9.6
30°-40°	2232.7	16.5
40°-50°	3447.0	25.5
50°-60°	3465.3	25.6
60°-70°	1777.0	13.1
70°-80°	192.6	1.4
80°-90°	20.1	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°	13514.6	100.0
0°-180°	13514.6	100.0

Coefficient of Utilization



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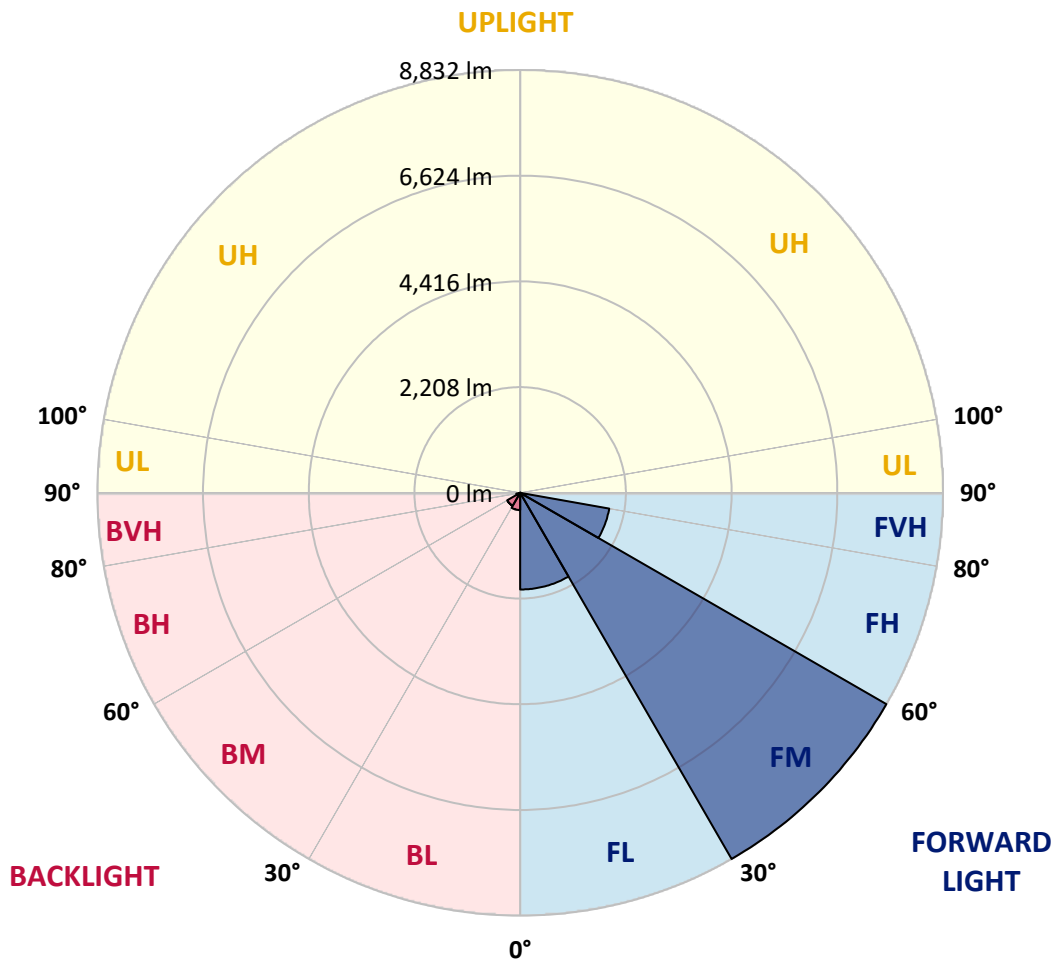
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2019.5	14.9			
FM	(30°-60°)	8831.7	65.3			
FH	(60°-80°)	1888.7	14.0			G2/5000
FVH	(80°-90°)	19.7	0.1			G1/100
BL	(0°-30°)	360.3	2.7	B1/500		
BM	(30°-60°)	313.3	2.3	B1/1000		
BH	(60°-80°)	80.9	0.6	B0/110		G0/110
BVH	(80°-90°)	0.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3804.3	3804.3	3804.3	3804.3	3804.3	3804.3	3804.3	3804.3	3804.3	3804.3	3804.3
2.5°	4501.4	4453.5	4439.1	4429.6	4385.7	4330.7	4255.7	4220.6	4148.8	4033.2	3891.2
5°	4913.7	4904.9	4873.0	4855.5	4808.4	4730.3	4610.6	4553.2	4439.1	4244.5	3990.1
7.5°	4733.4	4788.5	4832.3	4905.7	4998.2	4995.0	4894.5	4834.7	4707.1	4450.3	4100.2
10°	4037.2	4081.8	4153.6	4320.3	4660.1	4959.9	5078.0	5034.9	4932.8	4639.3	4206.3
12.5°	3900.8	3896.0	3908.8	3957.4	4135.3	4562.8	5046.9	5133.8	5113.1	4812.4	4306.8
15°	3973.4	3967.8	3966.2	3983.0	4026.0	4206.3	4813.2	5062.8	5223.1	4972.7	4392.1
17.5°	4176.8	4152.8	4140.1	4126.5	4113.7	4158.4	4532.5	4864.2	5239.9	5113.1	4463.1
20°	4525.3	4485.4	4438.4	4361.8	4290.0	4267.7	4414.4	4660.1	5180.1	5219.9	4509.3
22.5°	4963.1	4912.1	4830.7	4691.2	4545.2	4460.7	4472.6	4595.5	5090.7	5336.4	4530.9
25°	5455.2	5389.8	5281.4	5087.6	4873.0	4723.1	4644.9	4688.0	5050.1	5472.8	4555.6
27.5°	5982.4	5909.8	5767.9	5503.9	5260.6	5058.0	4898.5	4893.0	5119.5	5651.4	4595.5
30°	6504.8	6493.6	6308.6	6029.5	5707.2	5460.8	5231.1	5201.6	5313.3	5898.7	4674.4
32.5°	7201.9	7118.1	6891.6	6604.5	6232.8	5936.9	5665.0	5596.4	5610.7	6186.6	4796.4
35°	8080.8	7989.0	7670.0	7273.6	6858.1	6508.8	6208.1	6114.8	6079.7	6657.9	5002.2
37.5°	8648.6	8647.0	8446.8	8043.3	7597.4	7212.2	6885.2	6776.0	6705.0	7227.4	5321.2
40°	8663.8	8701.2	8727.6	8723.6	8406.1	8051.2	7760.9	7626.1	7461.1	7988.2	5733.6
42.5°	8198.8	8295.3	8527.4	8921.4	9109.6	8968.4	8723.6	8591.2	8345.5	8802.5	6236.0
45°	7570.3	7637.3	8043.3	8769.0	9490.8	9877.6	9691.0	9454.1	9130.3	9651.9	6686.6
47.5°	7288.8	7300.7	7563.1	8359.9	9519.5	10622.5	10735.8	10350.6	9843.3	10336.2	7039.2
50°	6447.4	6468.9	6831.0	7650.9	9183.0	10974.3	11785.4	11420.1	10620.9	10863.4	7167.6
52.5°	4859.5	4889.8	5349.2	6485.7	8257.8	10824.3	12536.6	12448.1	11472.7	11121.0	7174.7
55°	2867.2	2907.1	3345.7	4365.8	6495.2	9870.4	12592.5	12917.9	12145.1	11273.3	7163.6
57.5°	1339.1	1367.0	1618.2	2249.1	4039.6	7800.8	11751.9	12595.7	12515.9	11353.9	7242.5
60°	711.4	719.4	780.0	973.8	1825.6	4946.4	10111.3	11373.8	12177.8	11465.5	7339.0
62.5°	543.9	546.3	543.1	566.3	767.2	2195.6	7642.9	9350.4	10816.3	11381.8	7232.2
65°	471.4	475.3	453.0	447.4	492.1	783.2	4540.4	6665.1	8499.5	10251.7	6504.0
67.5°	422.7	424.3	397.2	374.0	382.0	423.5	1791.3	3648.8	5625.9	7514.5	4714.3
70°	389.2	387.6	358.1	321.4	311.0	289.5	569.4	1337.5	2688.5	3810.7	2192.5
72.5°	344.5	345.3	331.0	283.1	258.4	202.6	264.0	390.0	802.3	1038.4	513.6
75°	305.5	301.5	283.9	253.6	212.9	133.2	130.8	173.9	247.2	245.6	110.9
77.5°	220.9	216.9	222.5	208.2	163.5	86.1	65.4	83.7	100.5	97.3	31.1
80°	161.9	159.5	143.6	173.1	144.4	59.0	40.7	44.7	51.8	43.9	9.6
82.5°	110.9	110.1	101.3	95.7	82.1	35.9	25.5	27.9	33.5	24.7	4.8
85°	17.5	19.9	73.4	58.2	48.7	16.0	17.5	19.1	22.3	13.6	1.6
87.5°	0.0	0.0	34.3	30.3	9.6	6.4	10.4	11.2	11.2	7.2	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°	3804.3	3804.3	3804.3	3804.3	3804.3	3804.3	3804.3	3804.3	3804.3	3804.3	3804.3
2.5°	3818.7	3738.9	3591.4	3439.0	3297.9	3129.6	3013.9	2927.0	2826.5	2799.4	2858.4
5°	3845.0	3694.2	3376.8	3031.5	2706.9	2347.2	2072.0	1854.3	1657.3	1590.3	1650.9
7.5°	3886.4	3662.3	3144.7	2576.1	2011.4	1449.9	1065.5	812.7	651.6	603.7	629.3
10°	3927.9	3616.1	2876.0	2036.9	1264.9	705.8	459.4	366.9	332.6	325.4	329.4
12.5°	3962.2	3553.9	2548.2	1448.3	676.3	378.0	300.7	285.5	280.7	280.7	282.3
15°	3983.0	3459.8	2159.8	921.2	389.2	285.5	262.4	257.6	257.6	258.4	260.0
17.5°	3980.6	3340.1	1734.7	557.5	291.1	252.8	239.3	235.3	234.5	236.1	236.9
20°	3951.0	3183.8	1308.0	367.7	253.6	230.5	216.9	209.8	209.0	210.6	212.1
22.5°	3895.2	2990.8	935.5	283.1	228.9	209.0	192.2	185.8	185.8	187.4	189.0
25°	3827.4	2754.7	639.6	240.1	206.6	185.8	169.9	164.3	165.9	169.9	170.7
27.5°	3742.9	2489.1	434.7	205.8	179.4	162.7	150.7	146.7	150.7	156.3	157.9
30°	3670.3	2212.4	310.2	177.9	152.3	140.4	133.2	133.2	138.8	149.1	151.5
32.5°	3614.5	1944.4	239.3	157.1	132.4	122.0	118.0	122.0	130.8	141.2	143.6
35°	3607.3	1723.5	202.6	140.4	118.0	107.7	106.1	113.3	122.0	130.0	131.6
37.5°	3662.3	1519.3	182.6	126.8	105.3	95.7	94.1	102.9	111.7	121.2	123.6
40°	3766.8	1359.0	168.3	114.0	94.9	84.5	81.3	87.7	99.7	112.5	115.6
42.5°	3902.4	1226.6	152.3	101.3	84.5	70.2	66.2	73.4	86.1	99.7	103.7
45°	4031.6	1112.6	134.8	86.9	71.0	54.2	52.6	62.2	68.6	82.1	85.3
47.5°	4102.6	1012.1	119.6	71.0	55.0	43.9	43.9	46.3	52.6	68.6	71.8
50°	4078.7	931.5	103.7	52.6	38.3	33.5	33.5	32.7	42.3	55.0	57.4
52.5°	4030.8	885.3	89.3	40.7	26.3	23.9	21.5	23.9	29.5	35.1	35.9
55°	4023.6	877.3	75.0	32.7	18.3	16.0	12.0	12.0	12.0	11.2	9.6
57.5°	4079.5	890.1	63.0	26.3	13.6	10.4	6.4	0.0	0.0	0.0	0.0
60°	4136.9	903.6	54.2	18.3	9.6	5.6	0.8	0.0	0.0	0.0	0.0
62.5°	4041.2	873.3	45.5	11.2	7.2	2.4	0.0	0.0	0.0	0.0	0.0
65°	3549.9	743.3	35.9	8.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	2525.0	497.7	23.9	4.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0
70°	1152.5	208.2	15.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	246.4	64.6	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	50.2	47.1	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	16.0	74.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	9.6	53.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.6	8.0	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)