

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: P300621

Luminaire Tested: **GLNA-AF-04-LED-E1-AFL-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300621
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-04-LED-E1-AFL-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K 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: 17857 lumens
Efficiency: N/A
Efficacy: 79.4 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

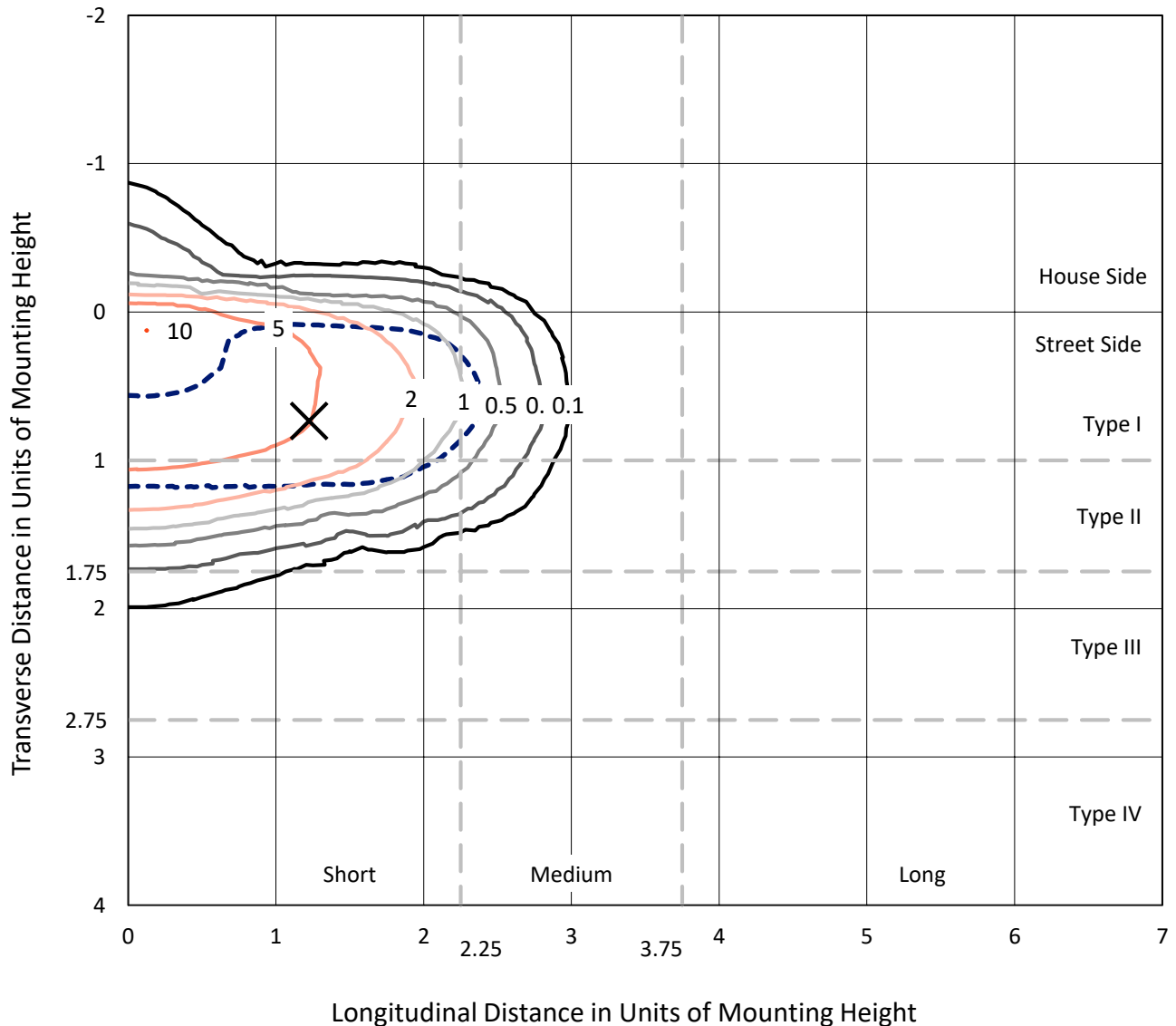
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

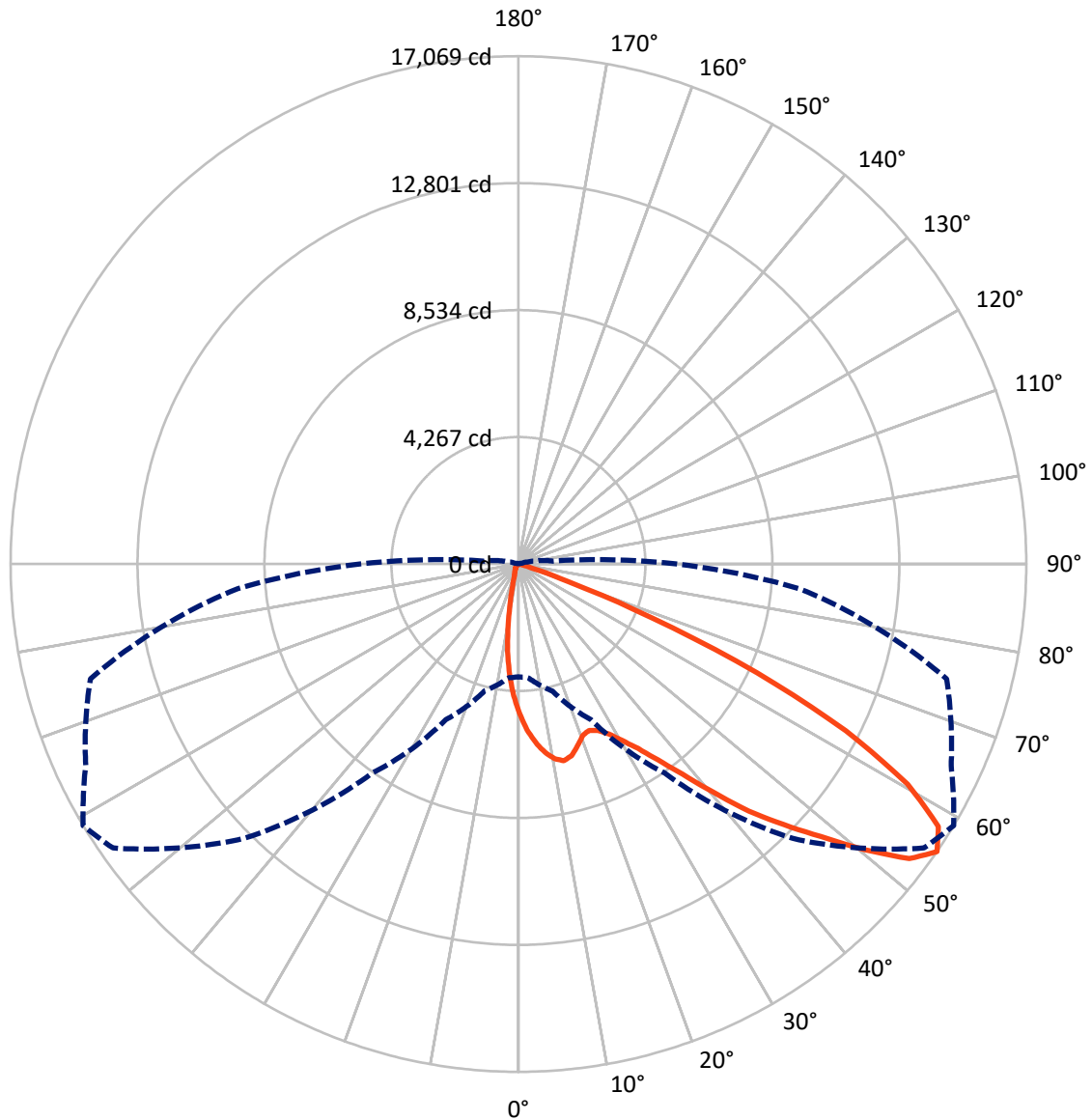
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10 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	997.4	0.0	997.4
	% Fixture	5.6	0.0	5.6
Street Side	Lumens	16859.6	0.0	16859.6
	% Fixture	94.4	0.0	94.4
Total	Lumens	17857.0	0.0	17857.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	421.0	2.4
10°-20°	1008.1	5.6
20°-30°	1715.4	9.6
30°-40°	2950.1	16.5
40°-50°	4554.6	25.5
50°-60°	4578.8	25.6
60°-70°	2348.0	13.1
70°-80°	254.5	1.4
80°-90°	26.6	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°	17857.0	100.0
0°-180°	17857.0	100.0

Coefficient of Utilization



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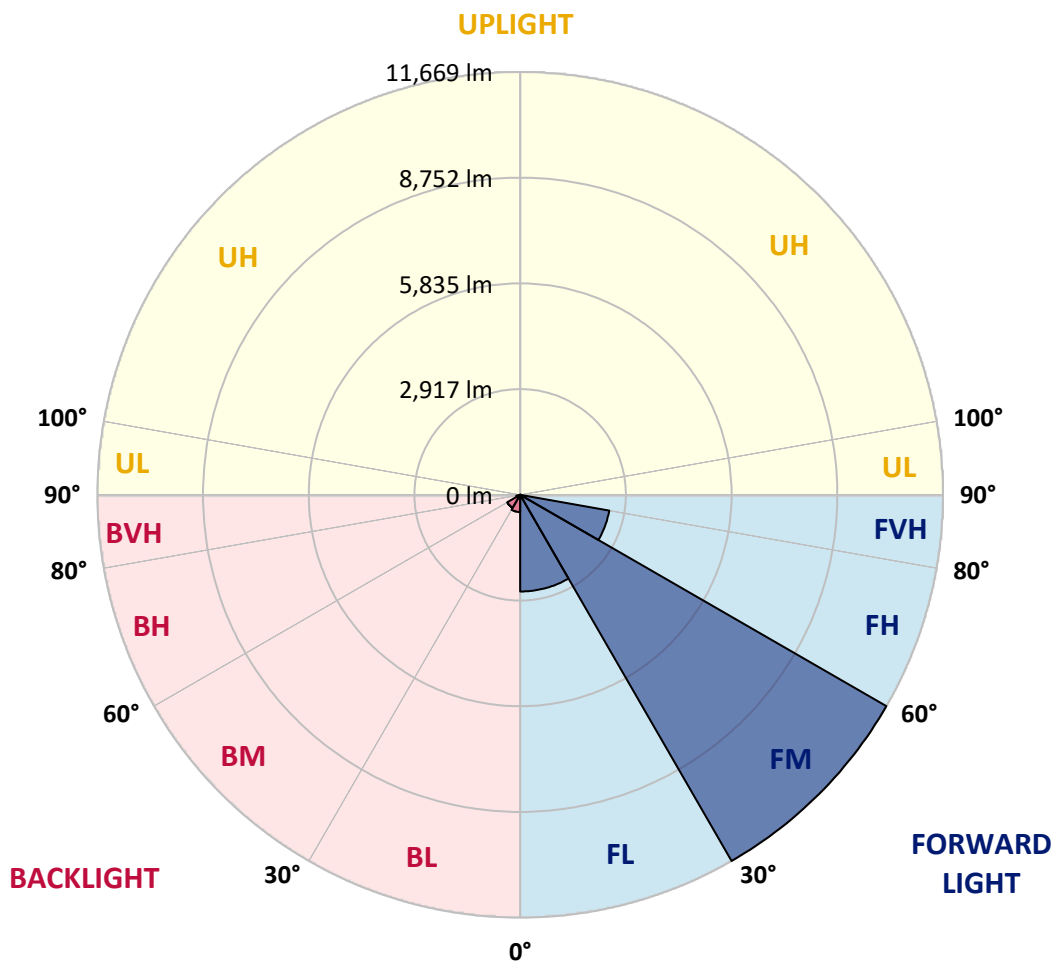
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2668.4	14.9			
FM	(30°-60°)	11669.5	65.3			
FH	(60°-80°)	2495.6	14.0			G2/5000
FVH	(80°-90°)	26.0	0.1			G1/100
BL	(0°-30°)	476.1	2.7	B1/500		
BM	(30°-60°)	413.9	2.3	B1/1000		
BH	(60°-80°)	106.9	0.6	B0/110		G0/110
BVH	(80°-90°)	0.5	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°	5026.7	5026.7	5026.7	5026.7	5026.7	5026.7	5026.7	5026.7	5026.7	5026.7	5026.7
2.5°	5947.7	5884.5	5865.5	5852.9	5794.9	5722.2	5623.1	5576.8	5481.9	5329.1	5141.5
5°	6492.5	6480.9	6438.8	6415.6	6353.4	6250.2	6092.1	6016.2	5865.5	5608.4	5272.2
7.5°	6254.4	6327.1	6385.0	6482.0	6604.2	6600.0	6467.2	6388.2	6219.6	5880.3	5417.6
10°	5334.4	5393.4	5488.2	5708.5	6157.4	6553.6	6709.6	6652.7	6517.8	6130.0	5557.8
12.5°	5154.2	5147.9	5164.7	5229.0	5464.0	6028.9	6668.5	6783.4	6756.0	6358.7	5690.6
15°	5250.1	5242.7	5240.6	5262.7	5319.6	5557.8	6359.7	6689.6	6901.4	6570.5	5803.3
17.5°	5518.8	5487.2	5470.3	5452.4	5435.6	5494.6	5988.8	6427.2	6923.5	6756.0	5897.1
20°	5979.3	5926.6	5864.5	5763.3	5668.4	5638.9	5832.8	6157.4	6844.5	6897.2	5958.2
22.5°	6557.9	6490.4	6382.9	6198.5	6005.7	5894.0	5909.8	6072.1	6726.5	7051.0	5986.7
25°	7208.1	7121.7	6978.3	6722.3	6438.8	6240.7	6137.4	6194.3	6672.7	7231.3	6019.4
27.5°	7904.6	7808.7	7621.2	7272.3	6950.9	6683.3	6472.5	6465.1	6764.4	7467.3	6072.1
30°	8594.9	8580.1	8335.6	7966.8	7541.1	7215.4	6911.9	6873.0	7020.5	7794.0	6176.4
32.5°	9515.9	9405.3	9106.0	8726.6	8235.5	7844.6	7485.2	7394.6	7413.6	8174.4	6337.6
35°	10677.2	10556.0	10134.5	9610.8	9061.7	8600.2	8202.9	8079.6	8033.2	8797.2	6609.5
37.5°	11427.5	11425.4	11160.9	10627.7	10038.6	9529.6	9097.5	8953.2	8859.4	9549.6	7031.0
40°	11447.5	11497.1	11531.9	11526.6	11107.2	10638.2	10254.6	10076.5	9858.4	10555.0	7575.8
42.5°	10833.2	10960.7	11267.3	11787.9	12036.6	11850.1	11526.6	11351.7	11027.1	11630.9	8239.7
45°	10002.8	10091.3	10627.7	11586.7	12540.3	13051.4	12804.9	12491.9	12064.0	12753.2	8835.2
47.5°	9630.8	9646.6	9993.3	11046.0	12578.3	14035.7	14185.3	13676.4	13006.1	13657.4	9300.9
50°	8519.0	8547.5	9025.9	10109.2	12133.6	14500.4	15572.2	15089.5	14033.6	14354.0	9470.6
52.5°	6420.9	6460.9	7067.9	8569.6	10911.2	14302.3	16564.9	16447.9	15159.1	14694.3	9480.1
55°	3788.4	3841.1	4420.7	5768.6	8582.2	13042.0	16638.6	17068.6	16047.4	14895.6	9465.3
57.5°	1769.3	1806.2	2138.2	2971.7	5337.6	10307.3	15527.9	16642.8	16537.5	15002.1	9569.7
60°	940.0	950.5	1030.6	1286.7	2412.2	6535.7	13360.2	15028.4	16090.6	15149.6	9697.2
62.5°	718.7	721.9	717.6	748.2	1013.8	2901.1	10098.7	12354.9	14291.8	15038.9	9556.0
65°	622.8	628.1	598.6	591.2	650.2	1034.8	5999.3	8806.7	11230.5	13545.7	8593.8
67.5°	558.5	560.6	524.8	494.2	504.8	559.6	2366.9	4821.2	7433.6	9929.0	6229.1
70°	514.3	512.2	473.2	424.7	411.0	382.5	752.4	1767.2	3552.4	5035.1	2896.9
72.5°	455.2	456.3	437.3	374.1	341.4	267.7	348.8	515.3	1060.1	1372.1	678.7
75°	403.6	398.3	375.2	335.1	281.4	176.0	172.8	229.7	326.7	324.6	146.5
77.5°	291.9	286.6	294.0	275.0	216.0	113.8	86.4	110.7	132.8	128.6	41.1
80°	213.9	210.8	189.7	228.7	190.7	78.0	53.7	59.0	68.5	58.0	12.6
82.5°	146.5	145.4	133.8	126.5	108.5	47.4	33.7	36.9	44.3	32.7	6.3
85°	23.2	26.3	97.0	76.9	64.3	21.1	23.2	25.3	29.5	17.9	2.1
87.5°	0.0	0.0	45.3	40.0	12.6	8.4	13.7	14.8	14.8	9.5	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°	5026.7	5026.7	5026.7	5026.7	5026.7	5026.7	5026.7	5026.7	5026.7	5026.7	5026.7
2.5°	5045.6	4940.3	4745.3	4544.0	4357.5	4135.2	3982.4	3867.5	3734.7	3698.9	3776.9
5°	5080.4	4881.3	4461.8	4005.5	3576.6	3101.4	2737.8	2450.1	2189.8	2101.3	2181.4
7.5°	5135.2	4839.1	4155.2	3403.8	2657.7	1915.8	1407.9	1073.8	861.0	797.7	831.5
10°	5190.0	4778.0	3800.0	2691.4	1671.3	932.6	607.0	484.8	439.4	430.0	435.2
12.5°	5235.3	4695.8	3366.9	1913.7	893.6	499.5	397.3	377.3	370.9	370.9	373.0
15°	5262.7	4571.4	2853.7	1217.2	514.3	377.3	346.7	340.4	340.4	341.4	343.5
17.5°	5259.6	4413.4	2292.0	736.6	384.6	334.1	316.1	310.9	309.8	311.9	313.0
20°	5220.6	4206.8	1728.2	485.8	335.1	304.6	286.6	277.2	276.1	278.2	280.3
22.5°	5146.8	3951.8	1236.1	374.1	302.4	276.1	254.0	245.5	245.5	247.6	249.8
25°	5057.2	3639.9	845.2	317.2	272.9	245.5	224.5	217.1	219.2	224.5	225.5
27.5°	4945.5	3288.9	574.3	271.9	237.1	215.0	199.2	193.9	199.2	206.5	208.7
30°	4849.6	2923.3	409.9	235.0	201.3	185.5	176.0	176.0	183.4	197.1	200.2
32.5°	4775.9	2569.2	316.1	207.6	174.9	161.2	156.0	161.2	172.8	186.5	189.7
35°	4766.4	2277.3	267.7	185.5	156.0	142.3	140.2	149.6	161.2	171.8	173.9
37.5°	4839.1	2007.5	241.3	167.6	139.1	126.5	124.3	135.9	147.5	160.2	163.3
40°	4977.1	1795.7	222.4	150.7	125.4	111.7	107.5	115.9	131.7	148.6	152.8
42.5°	5156.3	1620.8	201.3	133.8	111.7	92.7	87.5	97.0	113.8	131.7	137.0
45°	5327.0	1470.1	178.1	114.9	93.8	71.7	69.6	82.2	90.6	108.5	112.8
47.5°	5420.8	1337.3	158.1	93.8	72.7	58.0	58.0	61.1	69.6	90.6	94.8
50°	5389.2	1230.9	137.0	69.6	50.6	44.3	44.3	43.2	55.9	72.7	75.9
52.5°	5326.0	1169.7	118.0	53.7	34.8	31.6	28.5	31.6	39.0	46.4	47.4
55°	5316.5	1159.2	99.1	43.2	24.2	21.1	15.8	15.8	15.8	14.8	12.6
57.5°	5390.2	1176.1	83.3	34.8	17.9	13.7	8.4	0.0	0.0	0.0	0.0
60°	5466.1	1194.0	71.7	24.2	12.6	7.4	1.1	0.0	0.0	0.0	0.0
62.5°	5339.7	1153.9	60.1	14.8	9.5	3.2	0.0	0.0	0.0	0.0	0.0
65°	4690.5	982.2	47.4	10.5	6.3	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	3336.4	657.6	31.6	6.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0
70°	1522.8	275.0	20.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	325.6	85.4	13.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	66.4	62.2	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	21.1	98.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	12.6	70.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	2.1	10.5	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)