

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: P300612

Luminaire Tested: **GLNA-AF-03-LED-E1-AFL-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300612
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-7027-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 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: 11742 lumens
Efficiency: N/A
Efficacy: 70.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

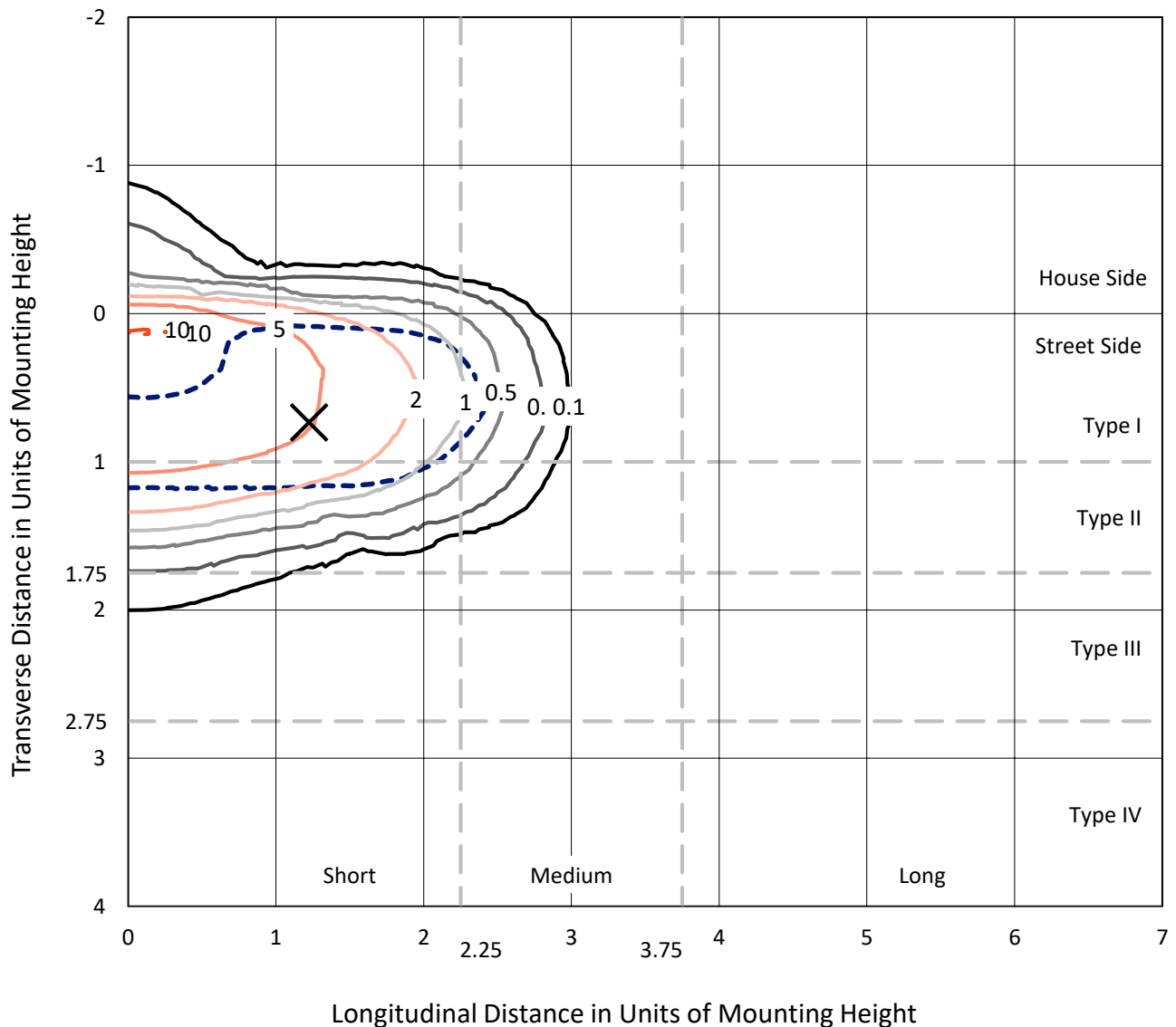
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

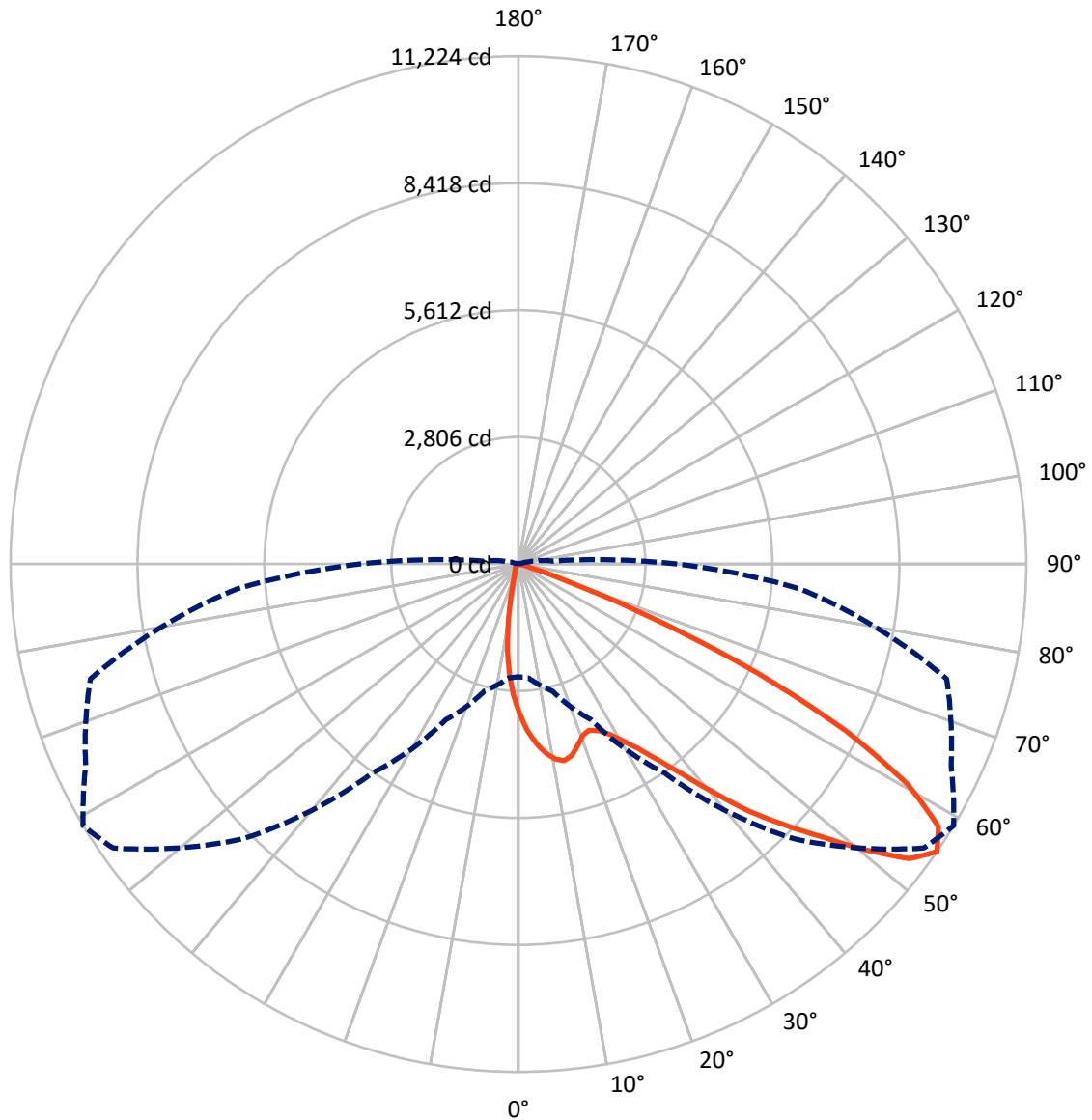
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 10.3 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	655.9	0.0	655.9
	% Fixture	5.6	0.0	5.6
Street Side	Lumens	11086.1	0.0	11086.1
	% Fixture	94.4	0.0	94.4
Total	Lumens	11742.0	0.0	11742.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	276.9	2.4
10°-20°	662.9	5.6
20°-30°	1128.0	9.6
30°-40°	1939.8	16.5
40°-50°	2994.9	25.5
50°-60°	3010.8	25.6
60°-70°	1544.0	13.1
70°-80°	167.3	1.4
80°-90°	17.5	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°	11742.0	100.0
0°-180°	11742.0	100.0

Coefficient of Utilization



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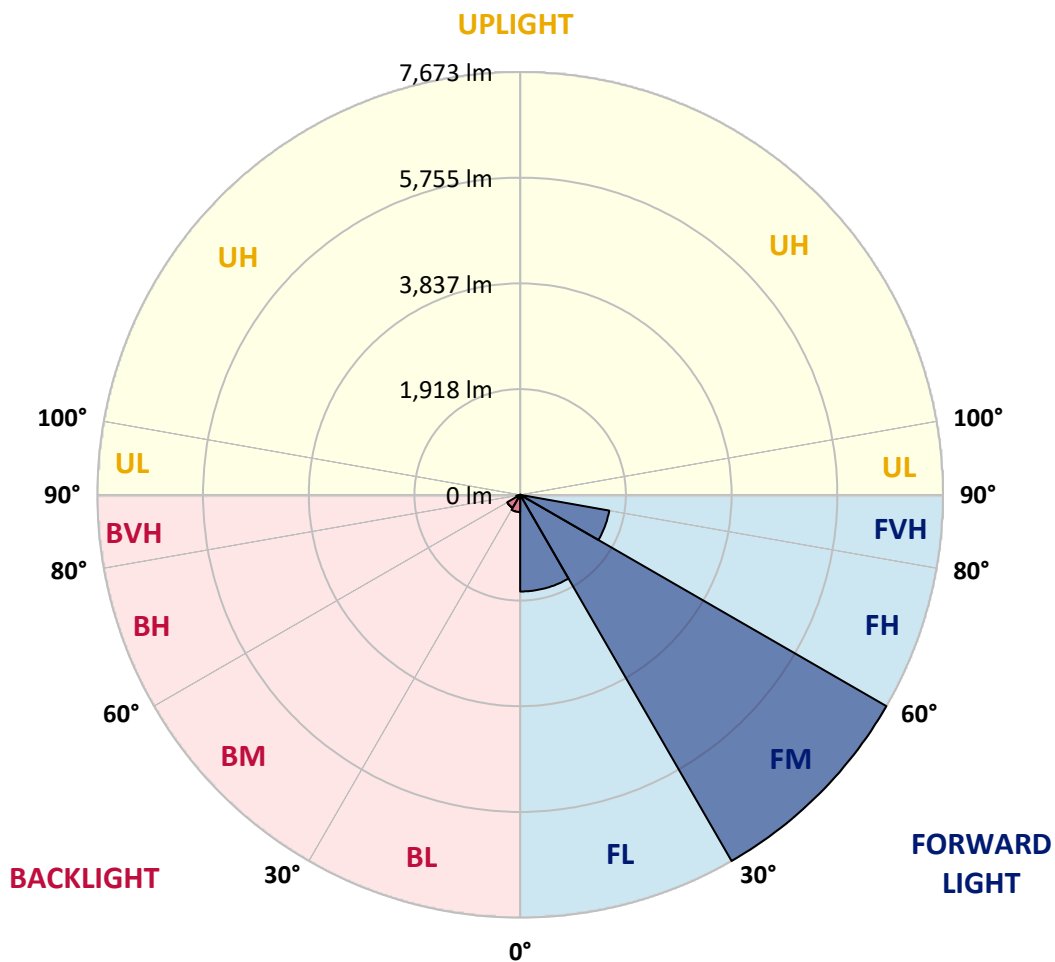
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1754.6	14.9			
FM	(30°-60°)	7673.3	65.3			
FH	(60°-80°)	1641.0	14.0			G1/1800
FVH	(80°-90°)	17.1	0.1			G1/100
BL	(0°-30°)	313.0	2.7	B1/500		
BM	(30°-60°)	272.2	2.3	B1/1000		
BH	(60°-80°)	70.3	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-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3305.3	3305.3	3305.3	3305.3	3305.3	3305.3	3305.3	3305.3	3305.3	3305.3	3305.3
2.5°	3911.0	3869.4	3856.9	3848.6	3810.5	3762.7	3697.5	3667.0	3604.7	3504.2	3380.9
5°	4269.2	4261.6	4233.9	4218.6	4177.7	4109.8	4005.9	3956.0	3856.9	3687.8	3466.8
7.5°	4112.6	4160.4	4198.5	4262.3	4342.7	4339.9	4252.6	4200.6	4089.7	3866.6	3562.4
10°	3507.7	3546.5	3608.8	3753.7	4048.8	4309.4	4411.9	4374.5	4285.8	4030.8	3654.6
12.5°	3389.2	3385.0	3396.1	3438.4	3592.9	3964.3	4384.9	4460.5	4442.4	4181.2	3741.9
15°	3452.2	3447.4	3446.0	3460.5	3498.0	3654.6	4181.9	4398.8	4538.1	4320.5	3816.0
17.5°	3628.9	3608.1	3597.1	3585.3	3574.2	3613.0	3938.0	4226.2	4552.6	4442.4	3877.7
20°	3931.7	3897.1	3856.2	3789.7	3727.3	3707.9	3835.4	4048.8	4500.6	4535.3	3917.9
22.5°	4312.2	4267.8	4197.1	4075.9	3949.1	3875.6	3886.0	3992.7	4423.0	4636.5	3936.6
25°	4739.7	4682.9	4588.6	4420.3	4233.9	4103.6	4035.7	4073.1	4387.7	4755.0	3958.1
27.5°	5197.7	5134.7	5011.3	4782.0	4570.6	4394.6	4256.0	4251.2	4448.0	4910.2	3992.7
30°	5651.6	5641.9	5481.2	5238.6	4958.7	4744.6	4545.0	4519.4	4616.4	5125.0	4061.3
32.5°	6257.2	6184.5	5987.7	5738.2	5415.3	5158.2	4922.0	4862.4	4874.8	5375.1	4167.3
35°	7020.9	6941.2	6664.0	6319.6	5958.6	5655.1	5393.8	5312.8	5282.3	5784.7	4346.1
37.5°	7514.2	7512.9	7338.9	6988.3	6600.9	6266.3	5982.2	5887.2	5825.5	6279.4	4623.3
40°	7527.4	7560.0	7582.8	7579.4	7303.6	6995.2	6743.0	6625.9	6482.5	6940.5	4981.5
42.5°	7123.4	7207.3	7408.9	7751.2	7914.8	7792.1	7579.4	7464.4	7250.9	7648.0	5418.1
45°	6577.4	6635.6	6988.3	7618.9	8246.0	8582.1	8419.9	8214.1	7932.8	8386.0	5809.6
47.5°	6332.8	6343.2	6571.2	7263.4	8270.9	9229.3	9327.7	8993.0	8552.3	8980.5	6115.9
50°	5601.7	5620.4	5935.0	6647.4	7978.5	9534.9	10239.6	9922.2	9227.9	9438.5	6227.5
52.5°	4222.1	4248.4	4647.5	5635.0	7174.7	9404.6	10892.3	10815.4	9967.9	9662.4	6233.7
55°	2491.1	2525.8	2906.9	3793.2	5643.3	8575.8	10940.8	11223.6	10552.1	9794.7	6224.0
57.5°	1163.4	1187.7	1406.0	1954.1	3509.7	6777.6	10210.5	10943.6	10874.3	9864.7	6292.6
60°	618.1	625.0	677.7	846.1	1586.1	4297.6	8785.1	9882.0	10580.5	9961.7	6376.4
62.5°	472.6	474.7	471.9	492.0	666.6	1907.7	6640.4	8124.0	9397.7	9888.9	6283.6
65°	409.5	413.0	393.6	388.7	427.5	680.5	3944.9	5790.9	7384.7	8907.1	5650.9
67.5°	367.3	368.6	345.1	325.0	331.9	368.0	1556.3	3170.2	4888.0	6528.9	4096.0
70°	338.2	336.8	311.1	279.3	270.2	251.5	494.8	1162.1	2335.9	3310.9	1904.9
72.5°	299.4	300.0	287.6	246.0	224.5	176.0	229.4	338.8	697.1	902.2	446.3
75°	265.4	261.9	246.7	220.4	185.0	115.7	113.6	151.1	214.8	213.4	96.3
77.5°	191.9	188.5	193.3	180.9	142.1	74.8	56.8	72.8	87.3	84.5	27.0
80°	140.7	138.6	124.7	150.4	125.4	51.3	35.3	38.8	45.0	38.1	8.3
82.5°	96.3	95.6	88.0	83.2	71.4	31.2	22.2	24.3	29.1	21.5	4.2
85°	15.2	17.3	63.8	50.6	42.3	13.9	15.2	16.6	19.4	11.8	1.4
87.5°	0.0	0.0	29.8	26.3	8.3	5.5	9.0	9.7	9.7	6.2	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°	3305.3	3305.3	3305.3	3305.3	3305.3	3305.3	3305.3	3305.3	3305.3	3305.3	3305.3
2.5°	3317.8	3248.5	3120.3	2988.0	2865.3	2719.1	2618.6	2543.1	2455.8	2432.2	2483.5
5°	3340.7	3209.7	2933.9	2633.9	2351.8	2039.3	1800.3	1611.1	1439.9	1381.7	1434.4
7.5°	3376.7	3182.0	2732.3	2238.2	1747.6	1259.8	925.8	706.1	566.1	524.6	546.7
10°	3412.7	3141.8	2498.7	1769.8	1099.0	613.3	399.1	318.8	289.0	282.7	286.2
12.5°	3442.5	3087.7	2213.9	1258.4	587.6	328.5	261.2	248.1	243.9	243.9	245.3
15°	3460.5	3006.0	1876.5	800.3	338.2	248.1	228.0	223.8	223.8	224.5	225.9
17.5°	3458.5	2902.0	1507.1	484.4	252.9	219.7	207.9	204.4	203.7	205.1	205.8
20°	3432.8	2766.2	1136.4	319.4	220.4	200.3	188.5	182.2	181.6	182.9	184.3
22.5°	3384.3	2598.5	812.8	246.0	198.9	181.6	167.0	161.5	161.5	162.8	164.2
25°	3325.4	2393.4	555.7	208.6	179.5	161.5	147.6	142.7	144.1	147.6	148.3
27.5°	3252.0	2162.7	377.7	178.8	155.9	141.4	131.0	127.5	131.0	135.8	137.2
30°	3188.9	1922.2	269.6	154.5	132.4	122.0	115.7	115.7	120.6	129.6	131.7
32.5°	3140.4	1689.4	207.9	136.5	115.0	106.0	102.6	106.0	113.6	122.7	124.7
35°	3134.2	1497.4	176.0	122.0	102.6	93.5	92.2	98.4	106.0	112.9	114.3
37.5°	3182.0	1320.1	158.7	110.2	91.5	83.2	81.8	89.4	97.0	105.3	107.4
40°	3272.8	1180.8	146.2	99.1	82.5	73.5	70.7	76.2	86.6	97.7	100.5
42.5°	3390.6	1065.7	132.4	88.0	73.5	61.0	57.5	63.8	74.8	86.6	90.1
45°	3502.8	966.7	117.1	75.5	61.7	47.1	45.7	54.0	59.6	71.4	74.1
47.5°	3564.5	879.3	103.9	61.7	47.8	38.1	38.1	40.2	45.7	59.6	62.4
50°	3543.7	809.4	90.1	45.7	33.3	29.1	29.1	28.4	36.7	47.8	49.9
52.5°	3502.1	769.2	77.6	35.3	22.9	20.8	18.7	20.8	25.6	30.5	31.2
55°	3495.9	762.2	65.1	28.4	15.9	13.9	10.4	10.4	10.4	9.7	8.3
57.5°	3544.4	773.3	54.7	22.9	11.8	9.0	5.5	0.0	0.0	0.0	0.0
60°	3594.3	785.1	47.1	15.9	8.3	4.9	0.7	0.0	0.0	0.0	0.0
62.5°	3511.1	758.8	39.5	9.7	6.2	2.1	0.0	0.0	0.0	0.0	0.0
65°	3084.3	645.8	31.2	6.9	4.2	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	2193.8	432.4	20.8	4.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0
70°	1001.3	180.9	13.2	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	214.1	56.1	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	43.7	40.9	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	13.9	64.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	8.3	46.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.4	6.9	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)