

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: P300741

Luminaire Tested: **GLNA-AF-04-LED-E1-AFL-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300741
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-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive
Frontline WITH HOUSESIDE SHIELD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11763.5 lumens
Efficiency: N/A
Efficacy: 91.2 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): 129
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

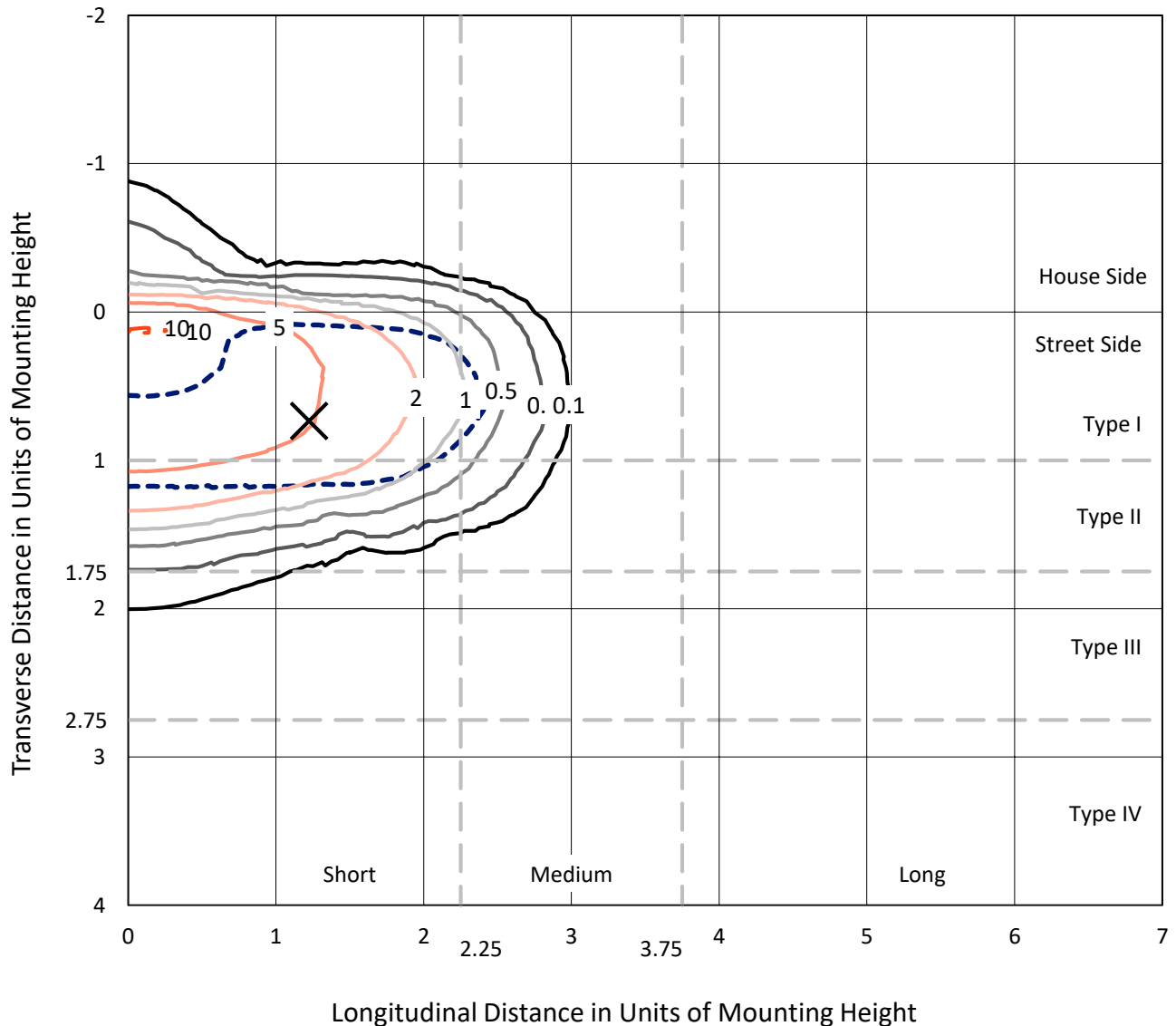


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Iso-Footcandle Lines of Horizontal Illumination

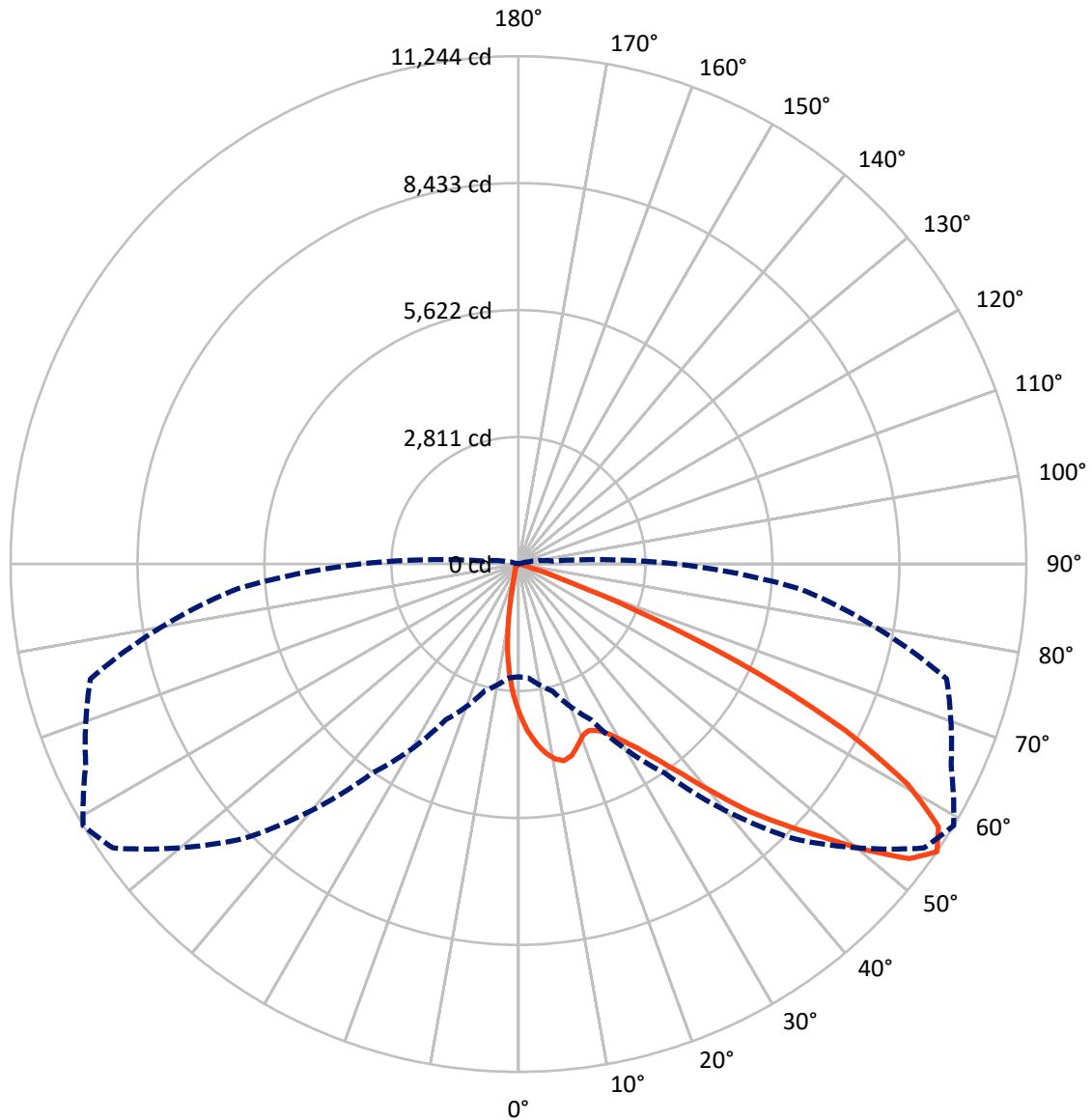
✕ Max cd
 - - - 1/2 Max cd



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	657.1	0.0	657.1
	% Fixture	5.6	0.0	5.6
Street Side	Lumens	11106.5	0.0	11106.5
	% Fixture	94.4	0.0	94.4
Total	Lumens	11763.5	0.0	11763.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.4	2.4
10°-20°	664.1	5.6
20°-30°	1130.0	9.6
30°-40°	1943.4	16.5
40°-50°	3000.4	25.5
50°-60°	3016.3	25.6
60°-70°	1546.8	13.1
70°-80°	167.6	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°	11763.5	100.0
0°-180°	11763.5	100.0

Coefficient of Utilization



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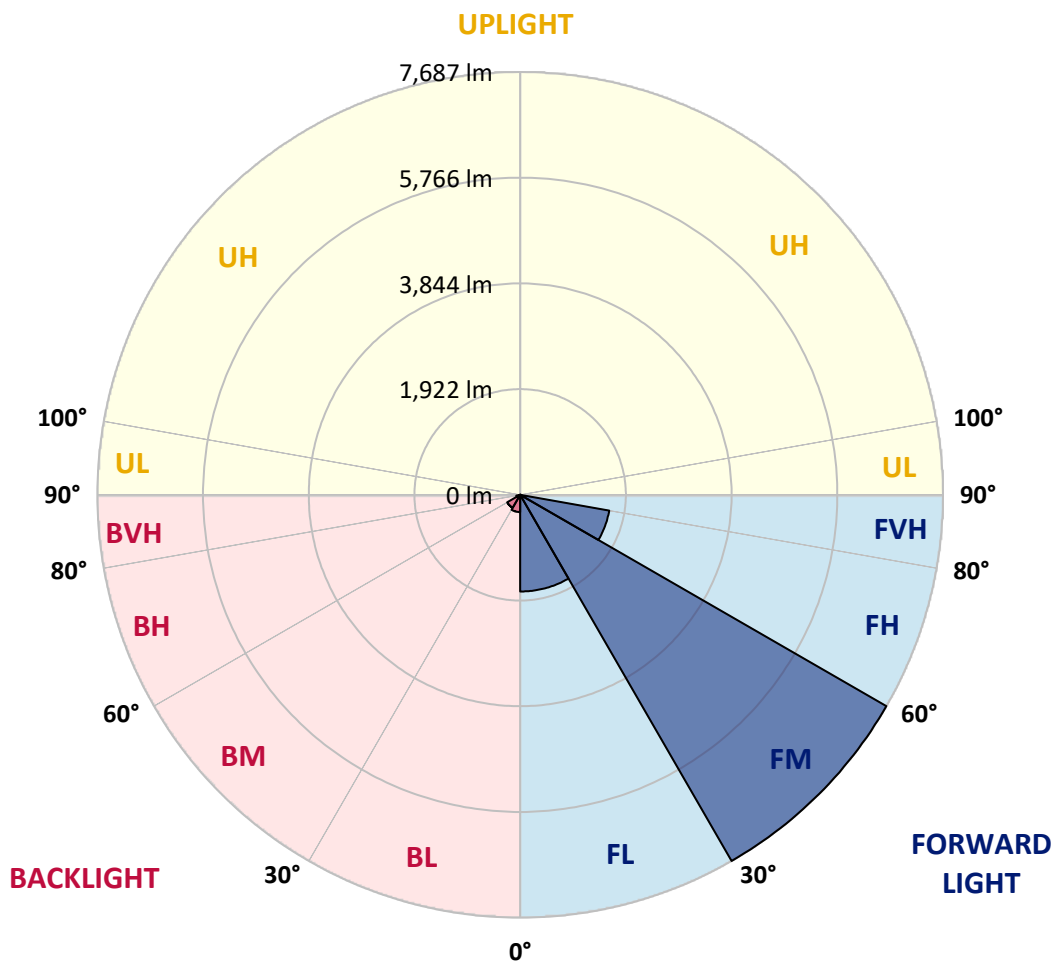
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1757.9	14.9			
FM	(30°-60°)	7687.4	65.3			
FH	(60°-80°)	1644.0	14.0			G1/1800
FVH	(80°-90°)	17.2	0.1			G1/100
BL	(0°-30°)	313.6	2.7	B1/500		
BM	(30°-60°)	272.7	2.3	B1/1000		
BH	(60°-80°)	70.4	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°	3311.4	3311.4	3311.4	3311.4	3311.4	3311.4	3311.4	3311.4	3311.4	3311.4	3311.4
2.5°	3918.1	3876.5	3864.0	3855.7	3817.5	3769.6	3704.3	3673.8	3611.3	3510.6	3387.1
5°	4277.0	4269.4	4241.6	4226.4	4185.4	4117.4	4013.2	3963.3	3864.0	3694.6	3473.1
7.5°	4120.2	4168.1	4206.2	4270.1	4350.6	4347.9	4260.4	4208.3	4097.2	3873.7	3568.9
10°	3514.1	3553.0	3615.5	3760.5	4056.3	4317.3	4420.1	4382.6	4293.7	4038.2	3661.3
12.5°	3395.4	3391.2	3402.3	3444.7	3599.5	3971.6	4393.0	4468.6	4450.6	4188.9	3748.7
15°	3458.6	3453.7	3452.3	3466.9	3504.4	3661.3	4189.6	4406.9	4546.4	4328.4	3823.0
17.5°	3635.6	3614.8	3603.7	3591.9	3580.7	3619.6	3945.2	4234.0	4561.0	4450.6	3884.8
20°	3939.0	3904.3	3863.3	3796.6	3734.2	3714.7	3842.5	4056.3	4508.9	4543.6	3925.1
22.5°	4320.1	4275.7	4204.8	4083.4	3956.3	3882.7	3893.1	4000.1	4431.2	4645.0	3943.8
25°	4748.4	4691.5	4597.1	4428.4	4241.6	4111.1	4043.1	4080.6	4395.8	4763.7	3965.3
27.5°	5207.3	5144.1	5020.5	4790.8	4579.0	4402.7	4263.9	4259.0	4456.2	4919.2	4000.1
30°	5662.0	5652.3	5491.2	5248.2	4967.8	4753.3	4553.3	4527.7	4624.8	5134.4	4068.8
32.5°	6268.7	6195.8	5998.7	5748.8	5425.3	5167.7	4931.0	4871.3	4883.8	5385.0	4175.0
35°	7033.8	6953.9	6676.2	6331.2	5969.5	5665.5	5403.8	5322.5	5292.0	5795.3	4354.1
37.5°	7528.0	7526.7	7352.4	7001.1	6613.1	6277.8	5993.1	5898.0	5836.2	6291.0	4631.8
40°	7541.2	7573.9	7596.8	7593.3	7317.0	7008.1	6755.4	6638.1	6494.4	6953.2	4990.7
42.5°	7136.5	7220.5	7422.5	7765.5	7929.3	7806.4	7593.3	7478.1	7264.2	7662.0	5428.0
45°	6589.5	6647.8	7001.1	7632.9	8261.1	8597.8	8435.4	8229.2	7947.3	8401.4	5820.3
47.5°	6344.4	6354.8	6583.2	7276.7	8286.1	9246.2	9344.8	9009.5	8568.0	8997.0	6127.1
50°	5612.0	5630.8	5945.9	6659.6	7993.2	9552.4	10258.4	9940.4	9244.8	9455.9	6238.9
52.5°	4229.8	4256.2	4656.1	5645.3	7187.9	9421.9	10912.3	10835.3	9986.2	9680.1	6245.1
55°	2495.7	2530.4	2912.2	3800.1	5653.7	8591.6	10960.9	11244.2	10571.5	9812.7	6235.4
57.5°	1165.6	1189.9	1408.6	1957.7	3516.2	6790.1	10229.2	10963.7	10894.3	9882.8	6304.1
60°	619.2	626.2	678.9	847.6	1589.1	4305.5	8801.2	9900.2	10599.9	9980.0	6388.1
62.5°	473.5	475.5	472.8	492.9	667.8	1911.2	6652.6	8138.9	9414.9	9907.1	6295.1
65°	410.3	413.8	394.3	389.5	428.3	681.7	3952.2	5801.5	7398.2	8923.4	5661.3
67.5°	367.9	369.3	345.7	325.6	332.5	368.6	1559.2	3176.0	4897.0	6540.9	4103.5
70°	338.8	337.4	311.7	279.8	270.7	252.0	495.7	1164.2	2340.2	3316.9	1908.4
72.5°	299.9	300.6	288.1	246.4	224.9	176.3	229.8	339.5	698.4	903.9	447.1
75°	265.9	262.4	247.1	220.8	185.4	115.9	113.9	151.3	215.2	213.8	96.5
77.5°	192.3	188.8	193.7	181.2	142.3	75.0	56.9	72.9	87.5	84.7	27.1
80°	140.9	138.8	125.0	150.6	125.7	51.4	35.4	38.9	45.1	38.2	8.3
82.5°	96.5	95.8	88.2	83.3	71.5	31.2	22.2	24.3	29.2	21.5	4.2
85°	15.3	17.4	63.9	50.7	42.3	13.9	15.3	16.7	19.4	11.8	1.4
87.5°	0.0	0.0	29.9	26.4	8.3	5.6	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°	3311.4	3311.4	3311.4	3311.4	3311.4	3311.4	3311.4	3311.4	3311.4	3311.4	3311.4
2.5°	3323.9	3254.5	3126.0	2993.4	2870.6	2724.1	2623.4	2547.8	2460.3	2436.7	2488.1
5°	3346.8	3215.6	2939.3	2638.7	2356.2	2043.1	1803.6	1614.0	1442.6	1384.3	1437.0
7.5°	3382.9	3187.8	2737.3	2242.3	1750.8	1262.1	927.5	707.4	567.2	525.5	547.7
10°	3419.0	3147.6	2503.3	1773.0	1101.0	614.4	399.9	319.3	289.5	283.2	286.7
12.5°	3448.8	3093.4	2218.0	1260.7	588.7	329.1	261.7	248.5	244.4	244.4	245.8
15°	3466.9	3011.5	1879.9	801.8	338.8	248.5	228.4	224.2	224.2	224.9	226.3
17.5°	3464.8	2907.4	1509.9	485.3	253.4	220.1	208.3	204.8	204.1	205.5	206.2
20°	3439.1	2771.3	1138.5	320.0	220.8	200.6	188.8	182.6	181.9	183.3	184.7
22.5°	3390.5	2603.3	814.3	246.4	199.2	181.9	167.3	161.8	161.8	163.1	164.5
25°	3331.5	2397.8	556.8	209.0	179.8	161.8	147.9	143.0	144.4	147.9	148.6
27.5°	3257.9	2166.6	378.3	179.1	156.2	141.6	131.2	127.7	131.2	136.1	137.5
30°	3194.8	1925.7	270.0	154.8	132.6	122.2	115.9	115.9	120.8	129.8	131.9
32.5°	3146.2	1692.5	208.3	136.8	115.2	106.2	102.7	106.2	113.9	122.9	125.0
35°	3139.9	1500.2	176.3	122.2	102.7	93.7	92.3	98.6	106.2	113.2	114.5
37.5°	3187.8	1322.5	159.0	110.4	91.6	83.3	81.9	89.6	97.2	105.5	107.6
40°	3278.8	1182.9	146.5	99.3	82.6	73.6	70.8	76.4	86.8	97.9	100.7
42.5°	3396.8	1067.7	132.6	88.2	73.6	61.1	57.6	63.9	75.0	86.8	90.2
45°	3509.2	968.4	117.3	75.7	61.8	47.2	45.8	54.1	59.7	71.5	74.3
47.5°	3571.0	881.0	104.1	61.8	47.9	38.2	38.2	40.3	45.8	59.7	62.5
50°	3550.2	810.8	90.2	45.8	33.3	29.2	29.2	28.5	36.8	47.9	50.0
52.5°	3508.6	770.6	77.8	35.4	22.9	20.8	18.7	20.8	25.7	30.5	31.2
55°	3502.3	763.6	65.3	28.5	16.0	13.9	10.4	10.4	10.4	9.7	8.3
57.5°	3550.9	774.7	54.8	22.9	11.8	9.0	5.6	0.0	0.0	0.0	0.0
60°	3600.9	786.5	47.2	16.0	8.3	4.9	0.7	0.0	0.0	0.0	0.0
62.5°	3517.6	760.2	39.6	9.7	6.2	2.1	0.0	0.0	0.0	0.0	0.0
65°	3089.9	647.0	31.2	6.9	4.2	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	2197.9	433.2	20.8	4.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0
70°	1003.1	181.2	13.2	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	214.5	56.2	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	43.7	41.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	13.9	64.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	8.3	46.5	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)