

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: P300648

Luminaire Tested: **GLNA-AF-09-LED-E1-AFL-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300648
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-09-LED-E1-AFL-7027-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 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: 34384.5 lumens
Efficiency: N/A
Efficacy: 68.6 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 501
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

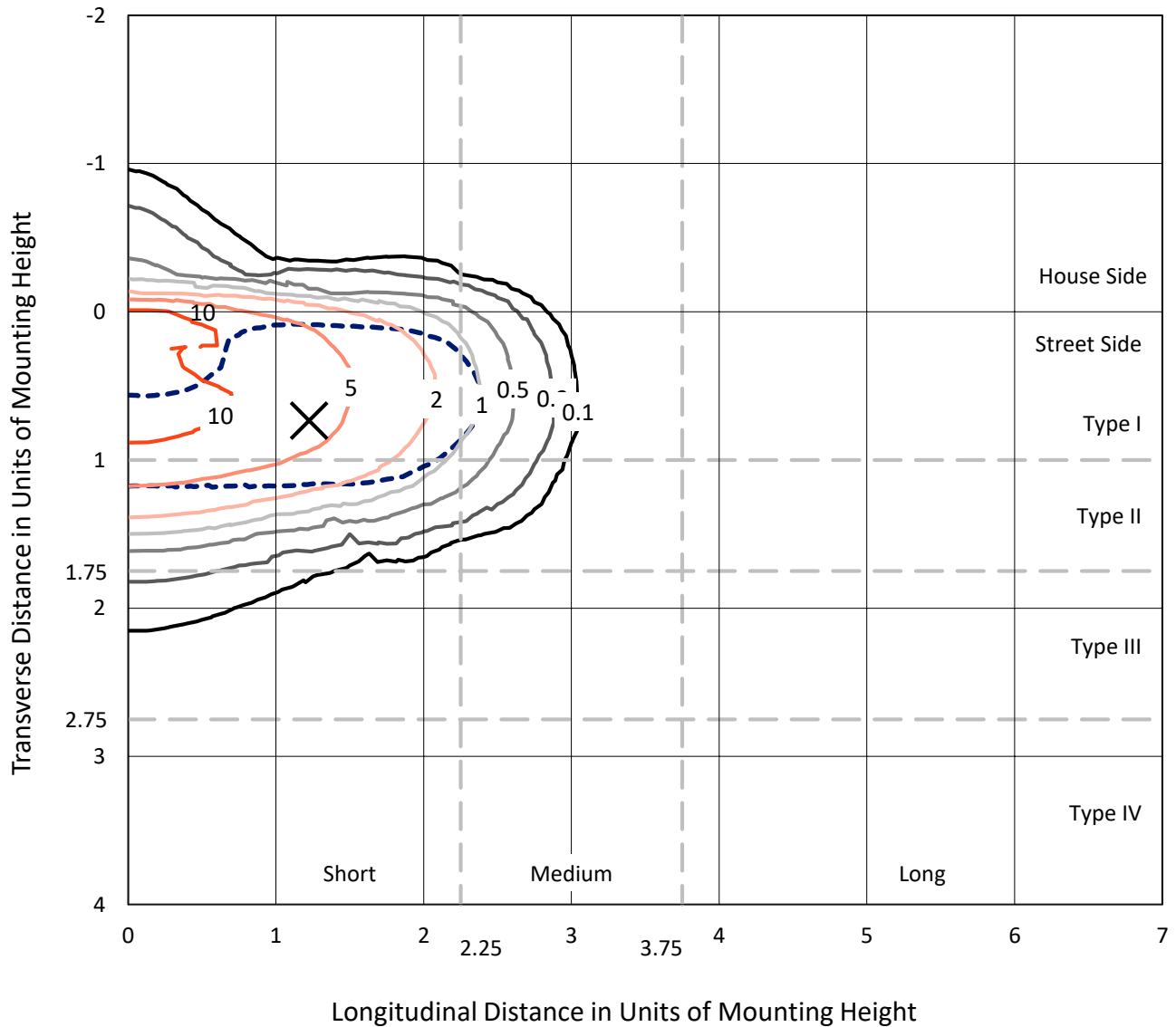


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

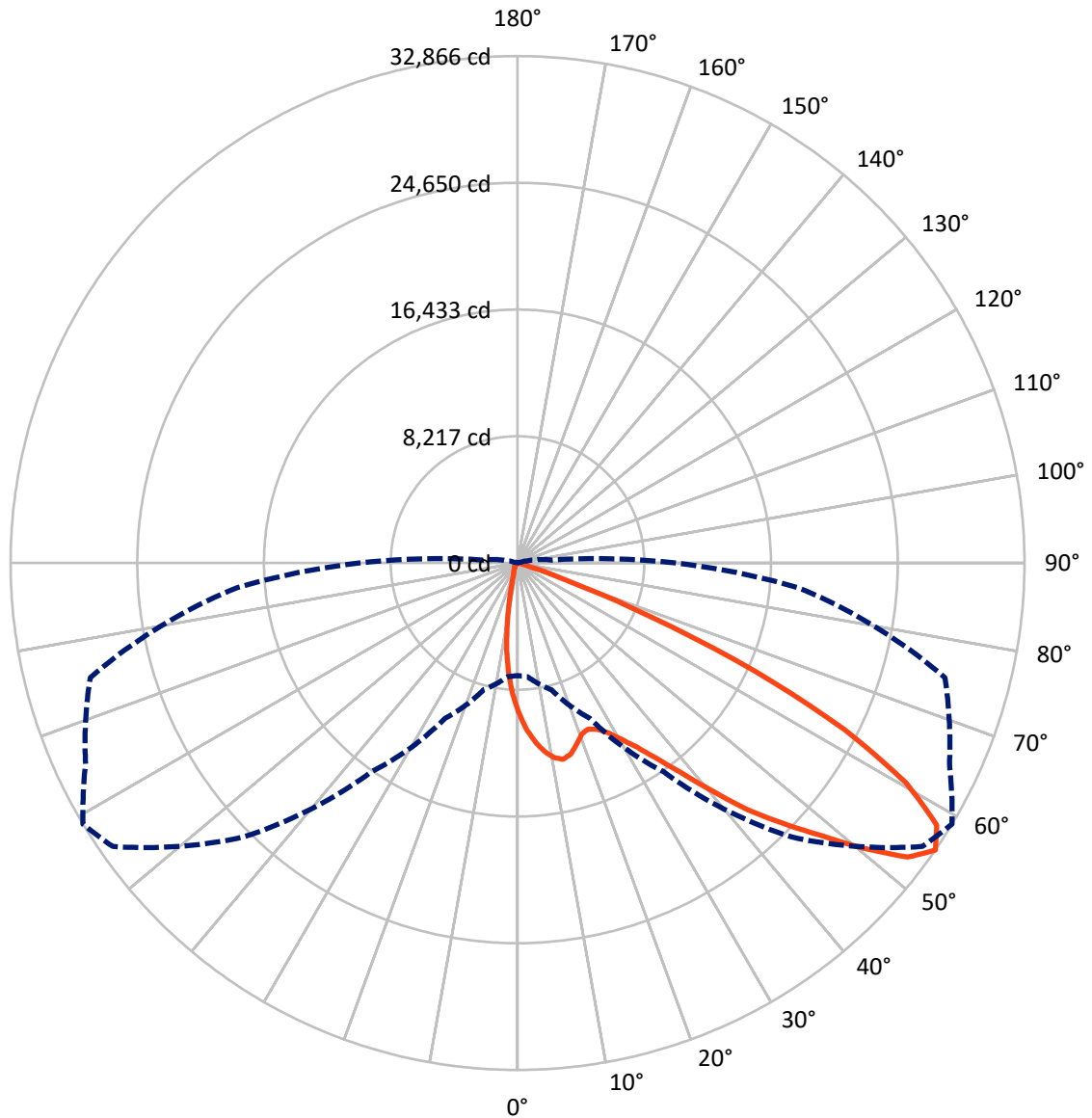


Based on 30 foot mounting height. Maximum calculated value = 13.4 fc
 Type II - Short - Full Cutoff

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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	1920.6	0.0	1920.6
	% Fixture	5.6	0.0	5.6
Street Side	Lumens	32463.9	0.0	32463.9
	% Fixture	94.4	0.0	94.4
Total	Lumens	34384.5	0.0	34384.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	810.7	2.4
10°-20°	1941.1	5.6
20°-30°	3303.0	9.6
30°-40°	5680.5	16.5
40°-50°	8770.0	25.5
50°-60°	8816.7	25.6
60°-70°	4521.3	13.1
70°-80°	490.0	1.4
80°-90°	51.2	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°	34384.5	100.0
0°-180°	34384.5	100.0

Coefficient of Utilization



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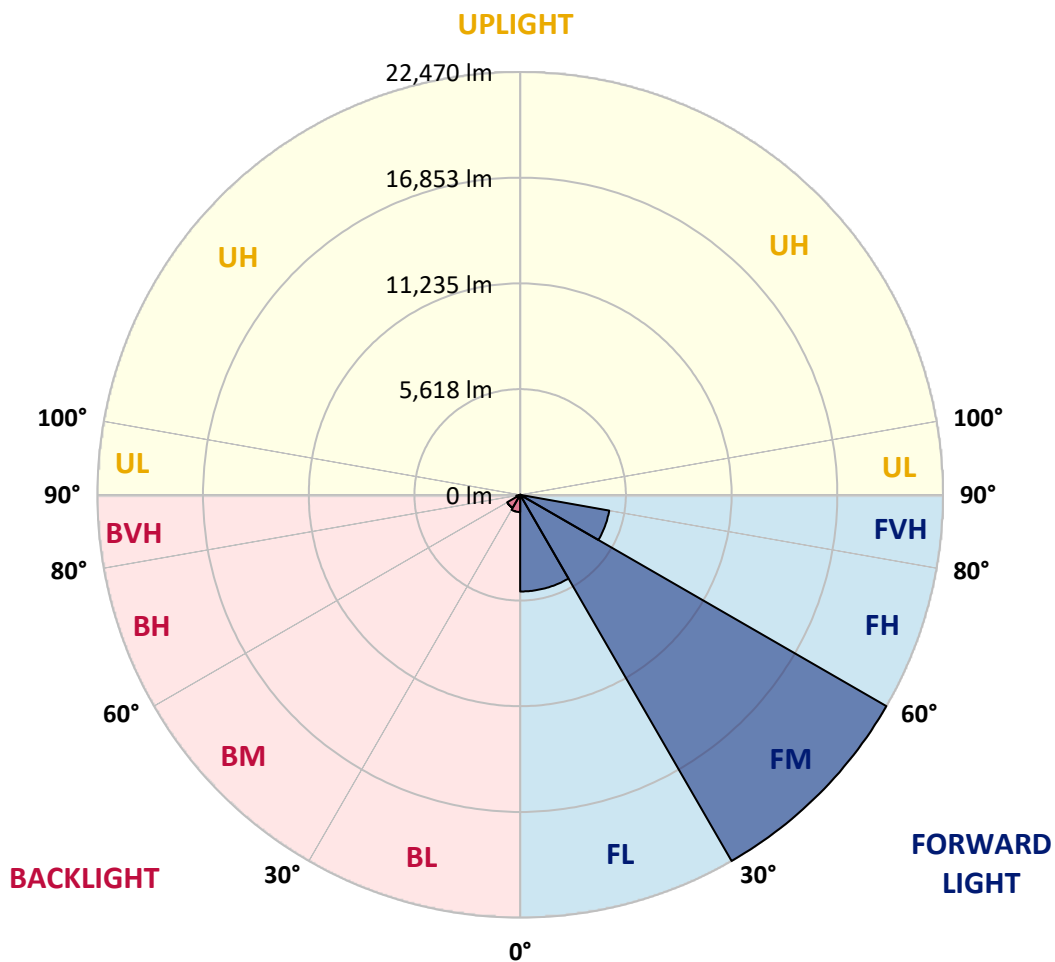
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5138.2	14.9			
FM	(30°-60°)	22470.1	65.3			
FH	(60°-80°)	4805.5	14.0			G2/5000
FVH	(80°-90°)	50.2	0.1			G1/100
BL	(0°-30°)	916.7	2.7	B2/1000		
BM	(30°-60°)	797.1	2.3	B1/1000		
BH	(60°-80°)	205.8	0.6	B1/500		G1/500
BVH	(80°-90°)	1.1	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°	9679.1	9679.1	9679.1	9679.1	9679.1	9679.1	9679.1	9679.1	9679.1	9679.1	9679.1
2.5°	11452.6	11330.8	11294.3	11270.0	11158.4	11018.3	10827.6	10738.3	10555.7	10261.5	9900.3
5°	12501.7	12479.3	12398.2	12353.5	12233.8	12035.0	11730.6	11584.5	11294.3	10799.2	10151.9
7.5°	12043.1	12183.1	12294.7	12481.4	12716.8	12708.6	12453.0	12300.8	11976.1	11322.7	10431.9
10°	10271.6	10385.2	10567.9	10992.0	11856.4	12619.4	12919.7	12810.1	12550.4	11803.6	10701.8
12.5°	9924.6	9912.5	9944.9	10068.7	10521.2	11608.8	12840.5	13061.7	13008.9	12244.0	10957.5
15°	10109.3	10095.1	10091.0	10133.6	10243.2	10701.8	12246.0	12881.1	13289.0	12651.8	11174.6
17.5°	10626.7	10565.8	10533.4	10498.9	10466.4	10580.0	11531.7	12375.9	13331.6	13008.9	11355.2
20°	11513.5	11412.0	11292.3	11097.5	10914.9	10858.0	11231.4	11856.4	13179.4	13280.9	11472.9
22.5°	12627.5	12497.6	12290.6	11935.5	11564.2	11349.1	11379.5	11692.0	12952.1	13577.1	11527.7
25°	13879.5	13713.1	13437.1	12944.0	12398.2	12016.7	11817.8	11927.4	12848.6	13924.1	11590.6
27.5°	15220.7	15036.1	14674.9	14003.2	13384.3	12868.9	12463.1	12448.9	13025.2	14378.6	11692.0
30°	16549.8	16521.4	16050.7	15340.5	14520.7	13893.7	13309.3	13234.2	13518.3	15007.7	11892.9
32.5°	18323.3	18110.3	17534.0	16803.5	15857.9	15105.1	14413.1	14238.6	14275.1	15740.2	12203.4
35°	20559.5	20326.1	19514.4	18505.9	17448.8	16560.0	15795.0	15557.6	15468.3	16939.4	12726.9
37.5°	22004.2	22000.2	21490.8	20464.1	19329.8	18349.7	17517.7	17239.7	17059.2	18388.3	13538.6
40°	22042.8	22138.1	22205.1	22195.0	21387.4	20484.4	19745.8	19402.8	18982.8	20324.1	14587.6
42.5°	20859.8	21105.3	21695.8	22698.2	23177.1	22817.9	22195.0	21858.1	21233.1	22395.8	15866.0
45°	19260.8	19431.2	20464.1	22310.6	24147.0	25131.2	24656.3	24053.7	23229.8	24556.9	17012.5
47.5°	18544.5	18574.9	19242.5	21269.7	24220.1	27026.4	27314.5	26334.4	25043.9	26297.9	17909.4
50°	16403.7	16458.5	17379.8	19465.7	23363.8	27921.3	29984.9	29055.6	27022.3	27639.2	18236.1
52.5°	12363.7	12440.8	13609.6	16501.1	21009.9	27539.8	31896.4	31671.1	29189.5	28294.6	18254.3
55°	7294.8	7396.3	8512.3	11107.6	16525.5	25112.9	32038.4	32866.3	30900.1	28682.2	18225.9
57.5°	3407.0	3478.0	4117.2	5722.2	10277.7	19847.2	29899.7	32046.5	31843.6	28887.1	18426.8
60°	1810.0	1830.3	1984.5	2477.6	4644.7	12584.9	25725.7	28937.9	30983.3	29171.2	18672.3
62.5°	1383.9	1390.0	1381.9	1440.7	1952.1	5586.3	19445.4	23789.9	27519.5	28958.2	18400.4
65°	1199.2	1209.4	1152.6	1138.4	1252.0	1992.6	11552.0	16957.7	21624.8	26082.8	16547.8
67.5°	1075.5	1079.5	1010.5	951.7	972.0	1077.5	4557.5	9283.4	14313.7	19118.8	11994.4
70°	990.2	986.2	911.1	817.8	791.4	736.6	1448.8	3402.9	6840.3	9695.3	5578.2
72.5°	876.6	878.6	842.1	720.4	657.4	515.4	671.7	992.3	2041.3	2642.0	1306.8
75°	777.2	767.0	722.4	645.3	541.8	338.9	332.8	442.4	629.0	625.0	282.1
77.5°	562.1	551.9	566.1	529.6	416.0	219.1	166.4	213.1	255.7	247.6	79.1
80°	411.9	405.8	365.2	440.3	367.3	150.2	103.5	113.6	131.9	111.6	24.3
82.5°	282.1	280.0	257.7	243.5	209.0	91.3	64.9	71.0	85.2	62.9	12.2
85°	44.6	50.7	186.7	148.1	123.8	40.6	44.6	48.7	56.8	34.5	4.1
87.5°	0.0	0.0	87.3	77.1	24.3	16.2	26.4	28.4	28.4	18.3	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°	9679.1	9679.1	9679.1	9679.1	9679.1	9679.1	9679.1	9679.1	9679.1	9679.1	9679.1
2.5°	9715.6	9512.7	9137.3	8749.7	8390.6	7962.4	7668.2	7447.0	7191.3	7122.4	7272.5
5°	9782.6	9399.1	8591.5	7712.8	6887.0	5971.8	5271.8	4717.8	4216.6	4046.1	4200.4
7.5°	9888.1	9317.9	8001.0	6554.2	5117.5	3689.0	2711.0	2067.7	1657.8	1536.1	1601.0
10°	9993.6	9200.2	7317.2	5182.5	3218.2	1795.8	1168.8	933.4	846.2	827.9	838.0
12.5°	10080.9	9041.9	6483.2	3685.0	1720.7	961.8	765.0	726.4	714.3	714.3	718.3
15°	10133.6	8802.5	5495.0	2343.7	990.2	726.4	667.6	655.4	655.4	657.4	661.5
17.5°	10127.5	8498.1	4413.4	1418.4	740.6	643.2	608.7	598.6	596.6	600.6	602.7
20°	10052.5	8100.4	3327.8	935.4	645.3	586.4	551.9	533.7	531.6	535.7	539.8
22.5°	9910.4	7609.4	2380.2	720.4	582.4	531.6	489.0	472.8	472.8	476.9	480.9
25°	9737.9	7008.7	1627.4	610.8	525.6	472.8	432.2	418.0	422.1	432.2	434.2
27.5°	9522.9	6333.0	1105.9	523.5	456.6	413.9	383.5	373.4	383.5	397.7	401.8
30°	9338.2	5628.9	789.3	452.5	387.6	357.1	338.9	338.9	353.1	379.5	385.5
32.5°	9196.2	4947.1	608.7	399.7	336.8	310.5	300.3	310.5	332.8	359.2	365.2
35°	9177.9	4385.0	515.4	357.1	300.3	273.9	269.9	288.1	310.5	330.8	334.8
37.5°	9317.9	3865.6	464.7	322.6	267.8	243.5	239.4	261.8	284.1	308.4	314.5
40°	9583.7	3457.7	428.2	290.2	241.5	215.1	207.0	223.2	253.6	286.1	294.2
42.5°	9928.7	3120.8	387.6	257.7	215.1	178.6	168.4	186.7	219.1	253.6	263.8
45°	10257.4	2830.7	342.9	221.2	180.6	138.0	133.9	158.3	174.5	209.0	217.1
47.5°	10438.0	2575.0	304.4	180.6	140.0	111.6	111.6	117.7	133.9	174.5	182.6
50°	10377.1	2370.1	263.8	133.9	97.4	85.2	85.2	83.2	107.5	140.0	146.1
52.5°	10255.4	2252.4	227.3	103.5	67.0	60.9	54.8	60.9	75.1	89.3	91.3
55°	10237.1	2232.1	190.7	83.2	46.7	40.6	30.4	30.4	30.4	28.4	24.3
57.5°	10379.2	2264.5	160.3	67.0	34.5	26.4	16.2	0.0	0.0	0.0	0.0
60°	10525.3	2299.0	138.0	46.7	24.3	14.2	2.0	0.0	0.0	0.0	0.0
62.5°	10281.8	2221.9	115.7	28.4	18.3	6.1	0.0	0.0	0.0	0.0	0.0
65°	9031.8	1891.2	91.3	20.3	12.2	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	6424.3	1266.2	60.9	12.2	2.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	2932.1	529.6	38.6	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	627.0	164.4	26.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	127.8	119.7	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	40.6	188.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	24.3	136.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	4.1	20.3	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)