

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: P300711

Luminaire Tested: **GLNA-AF-09-LED-E1-AFL-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300711
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-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline WITH HOUSESIDE SHIELD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31972 lumens
Efficiency: N/A
Efficacy: 85.5 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): 374
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

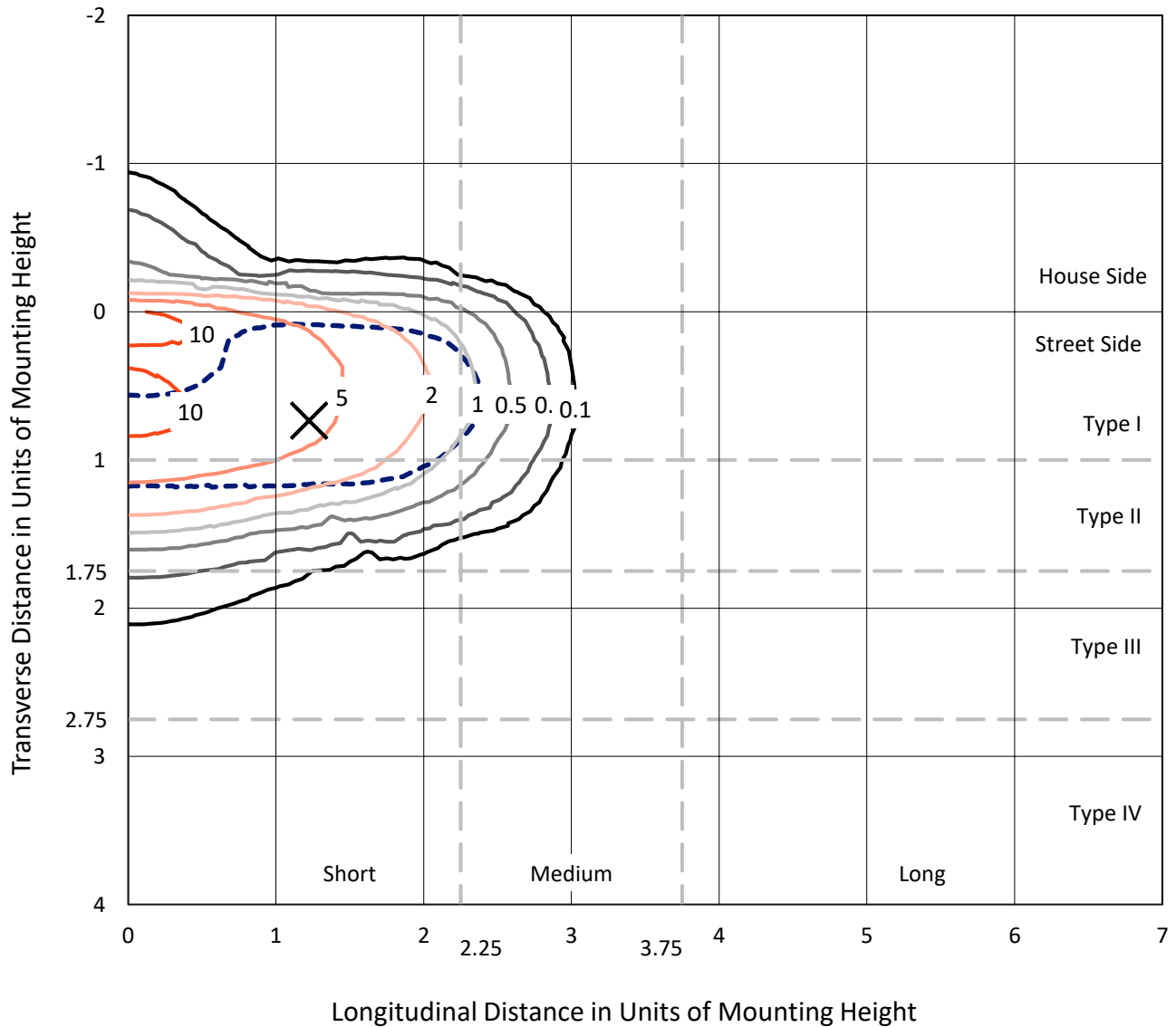


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Iso-Footcandle Lines of Horizontal Illumination

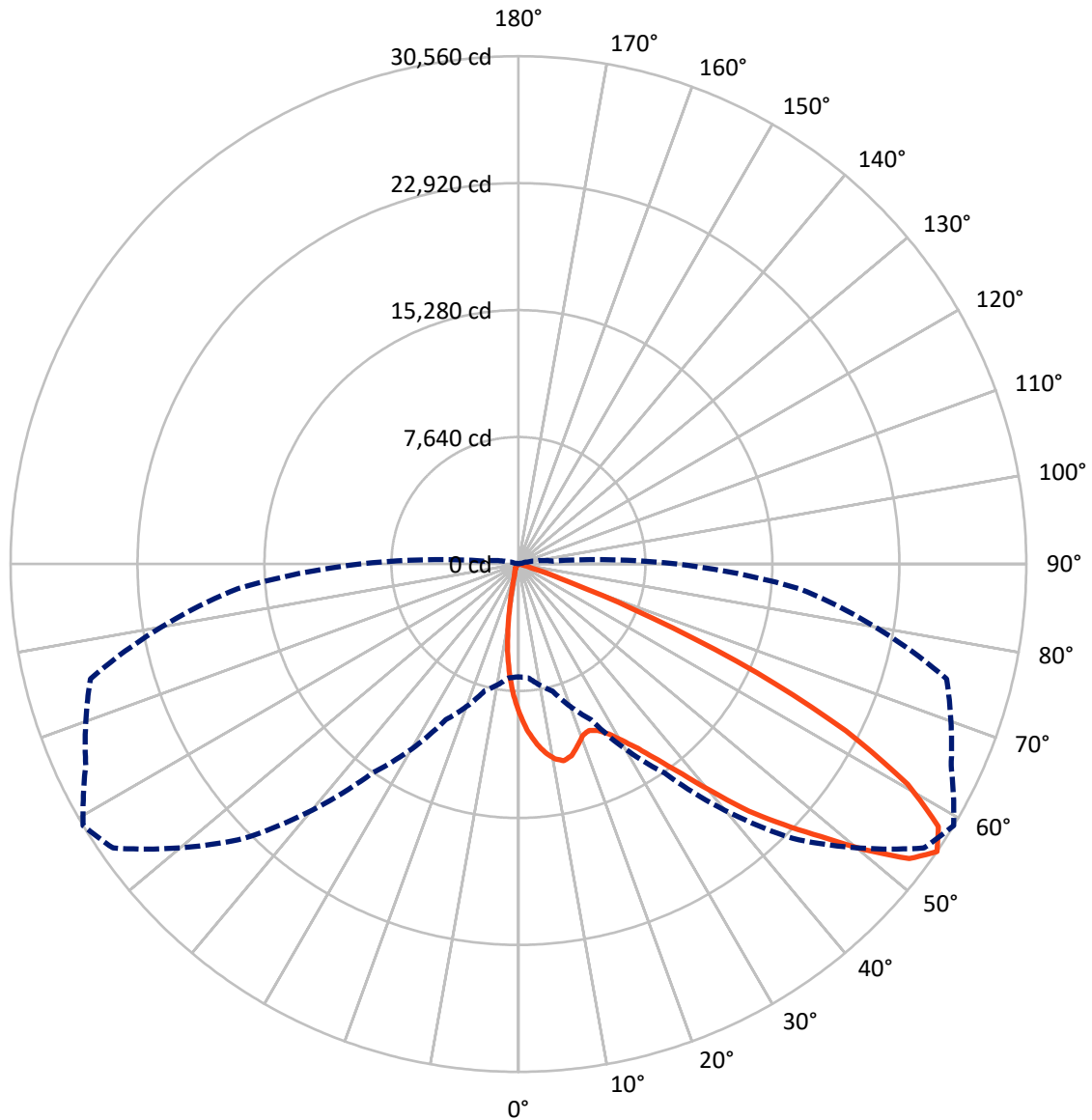
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.4 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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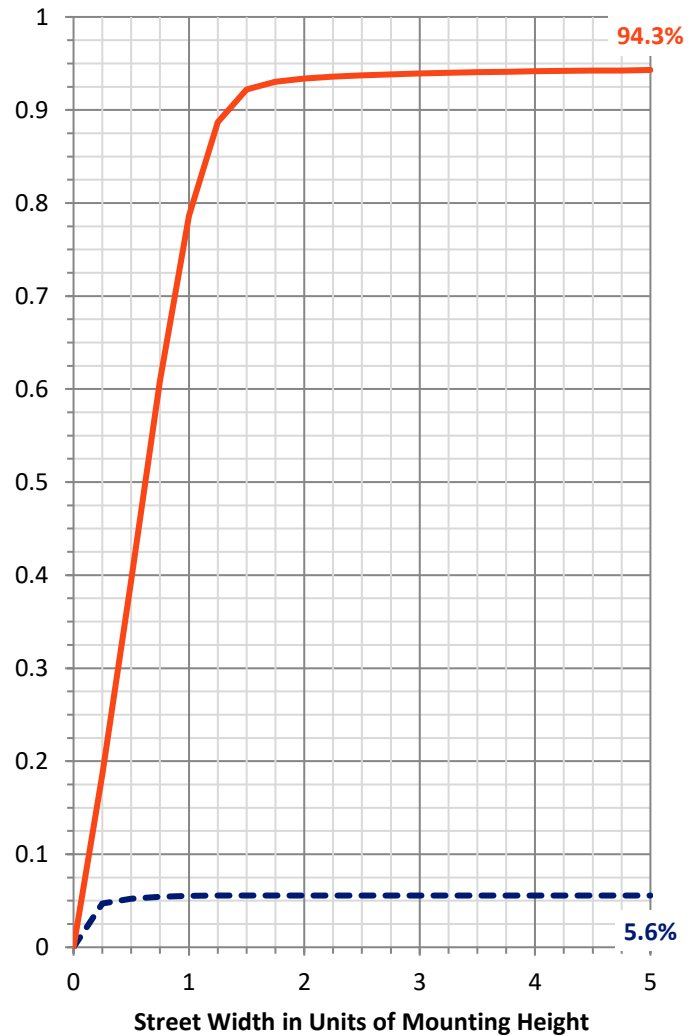
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1785.8	0.0	1785.8
	% Fixture	5.6	0.0	5.6
Street Side	Lumens	30186.2	0.0	30186.2
	% Fixture	94.4	0.0	94.4
Total	Lumens	31972.0	0.0	31972.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	753.8	2.4
10°-20°	1804.9	5.6
20°-30°	3071.3	9.6
30°-40°	5281.9	16.5
40°-50°	8154.7	25.5
50°-60°	8198.1	25.6
60°-70°	4204.0	13.1
70°-80°	455.6	1.4
80°-90°	47.6	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°	31972.0	100.0
0°-180°	31972.0	100.0



--- HS — SS

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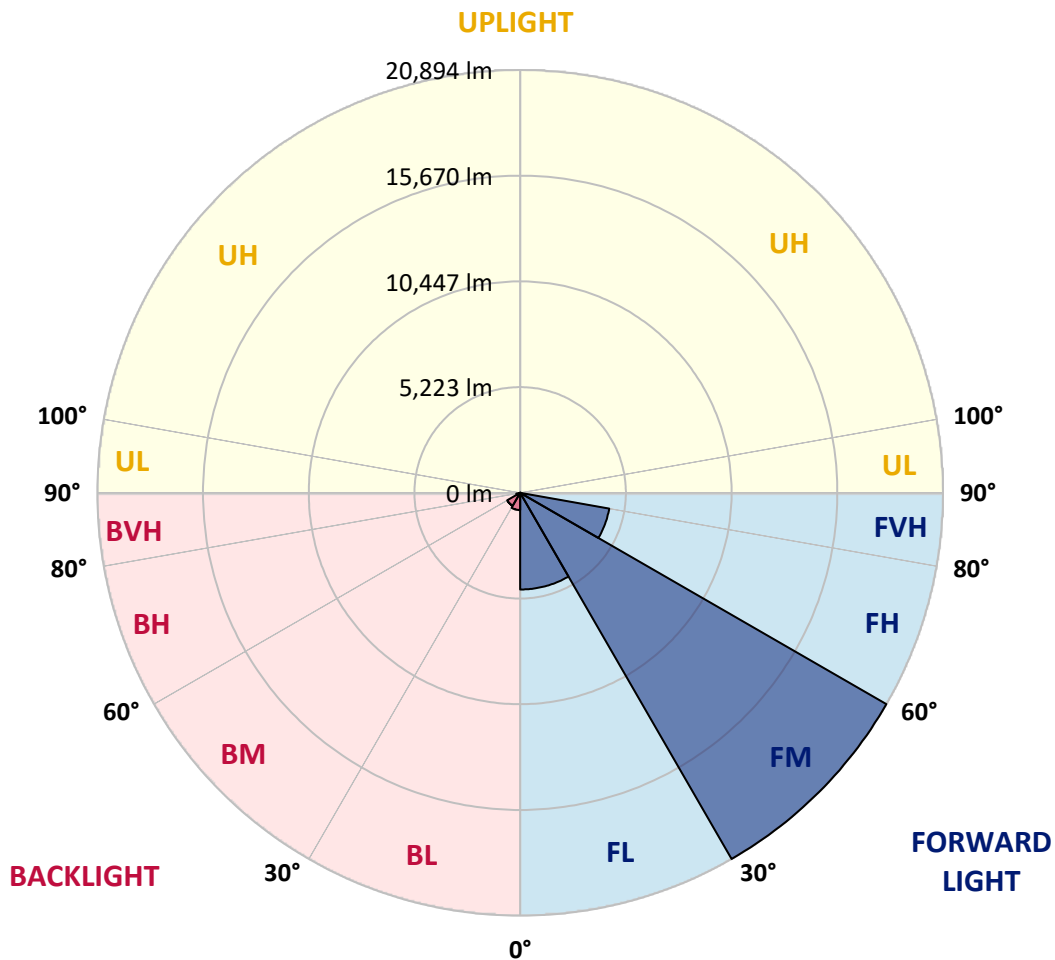
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4777.7	14.9			
FM (30°-60°)	20893.6	65.3			
FH (60°-80°)	4468.3	14.0			G2/5000
FVH (80°-90°)	46.6	0.1			G1/100
BL (0°-30°)	852.4	2.7	B2/1000		
BM (30°-60°)	741.1	2.3	B1/1000		
BH (60°-80°)	191.3	0.6	B1/500		G1/500
BVH (80°-90°)	1.0	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°	9000.0	9000.0	9000.0	9000.0	9000.0	9000.0	9000.0	9000.0	9000.0	9000.0	9000.0
2.5°	10649.1	10535.9	10501.9	10479.3	10375.5	10245.3	10067.9	9984.9	9815.1	9541.5	9205.7
5°	11624.5	11603.8	11528.3	11486.8	11375.5	11190.6	10907.6	10771.7	10501.9	10041.5	9439.6
7.5°	11198.1	11328.3	11432.1	11605.7	11824.5	11817.0	11579.3	11437.7	11135.9	10528.3	9700.0
10°	9551.0	9656.6	9826.4	10220.8	11024.5	11734.0	12013.2	11911.3	11669.8	10975.5	9951.0
12.5°	9228.3	9217.0	9247.2	9362.3	9783.0	10794.4	11939.6	12145.3	12096.2	11384.9	10188.7
15°	9400.0	9386.8	9383.0	9422.7	9524.5	9951.0	11386.8	11977.4	12356.6	11764.2	10390.6
17.5°	9881.1	9824.5	9794.4	9762.3	9732.1	9837.7	10722.7	11507.6	12396.2	12096.2	10558.5
20°	10705.7	10611.3	10500.0	10318.9	10149.1	10096.2	10443.4	11024.5	12254.7	12349.1	10667.9
22.5°	11741.5	11620.8	11428.3	11098.1	10752.8	10552.8	10581.1	10871.7	12043.4	12624.5	10718.9
25°	12905.7	12751.0	12494.4	12035.9	11528.3	11173.6	10988.7	11090.6	11947.2	12947.2	10777.4
27.5°	14152.8	13981.1	13645.3	13020.8	12445.3	11966.1	11588.7	11575.5	12111.3	13369.8	10871.7
30°	15388.7	15362.3	14924.5	14264.2	13501.9	12918.9	12375.5	12305.7	12569.8	13954.7	11058.5
32.5°	17037.8	16839.6	16303.8	15624.5	14745.3	14045.3	13401.9	13239.6	13273.6	14635.9	11347.2
35°	19117.0	18900.0	18145.3	17207.6	16224.5	15398.1	14686.8	14466.1	14383.0	15751.0	11834.0
37.5°	20460.4	20456.6	19983.0	19028.3	17973.6	17062.3	16288.7	16030.2	15862.3	17098.1	12588.7
40°	20496.3	20584.9	20647.2	20637.8	19886.8	19047.2	18360.4	18041.5	17651.0	18898.1	13564.2
42.5°	19396.2	19624.6	20173.6	21105.7	21551.0	21217.0	20637.8	20324.6	19743.4	20824.6	14752.8
45°	17909.5	18067.9	19028.3	20745.3	22452.9	23368.0	22926.4	22366.1	21600.0	22834.0	15818.9
47.5°	17243.4	17271.7	17892.5	19777.4	22520.8	25130.2	25398.1	24486.8	23286.8	24452.9	16652.8
50°	15252.8	15303.8	16160.4	18100.0	21724.6	25962.3	27881.2	27017.0	25126.4	25700.0	16956.6
52.5°	11496.2	11567.9	12654.7	15343.4	19535.9	25607.6	29658.5	29449.1	27141.5	26309.5	16973.6
55°	6783.0	6877.4	7915.1	10328.3	15366.1	23351.0	29790.6	30560.4	28732.1	26669.8	16947.2
57.5°	3167.9	3234.0	3828.3	5320.8	9556.6	18454.7	27801.9	29798.1	29609.5	26860.4	17134.0
60°	1683.0	1701.9	1845.3	2303.8	4318.9	11701.9	23920.8	26907.6	28809.5	27124.6	17362.3
62.5°	1286.8	1292.5	1284.9	1339.6	1815.1	5194.3	18081.2	22120.8	25588.7	26926.4	17109.5
65°	1115.1	1124.5	1071.7	1058.5	1164.2	1852.8	10741.5	15767.9	20107.6	24252.9	15386.8
67.5°	1000.0	1003.8	939.6	884.9	903.8	1001.9	4237.7	8632.1	13309.4	17777.4	11152.8
70°	920.8	917.0	847.2	760.4	735.8	684.9	1347.2	3164.2	6360.4	9015.1	5186.8
72.5°	815.1	817.0	783.0	669.8	611.3	479.2	624.5	922.6	1898.1	2456.6	1215.1
75°	722.6	713.2	671.7	600.0	503.8	315.1	309.4	411.3	584.9	581.1	262.3
77.5°	522.6	513.2	526.4	492.5	386.8	203.8	154.7	198.1	237.7	230.2	73.6
80°	383.0	377.4	339.6	409.4	341.5	139.6	96.2	105.7	122.6	103.8	22.6
82.5°	262.3	260.4	239.6	226.4	194.3	84.9	60.4	66.0	79.2	58.5	11.3
85°	41.5	47.2	173.6	137.7	115.1	37.7	41.5	45.3	52.8	32.1	3.8
87.5°	0.0	0.0	81.1	71.7	22.6	15.1	24.5	26.4	26.4	17.0	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9000.0	9000.0	9000.0	9000.0	9000.0	9000.0	9000.0	9000.0	9000.0	9000.0	9000.0
2.5°	9034.0	8845.3	8496.2	8135.9	7801.9	7403.8	7130.2	6924.5	6686.8	6622.6	6762.3
5°	9096.2	8739.6	7988.7	7171.7	6403.8	5552.8	4901.9	4386.8	3920.8	3762.3	3905.7
7.5°	9194.4	8664.2	7439.6	6094.3	4758.5	3430.2	2520.8	1922.6	1541.5	1428.3	1488.7
10°	9292.5	8554.7	6803.8	4818.9	2992.5	1669.8	1086.8	867.9	786.8	769.8	779.2
12.5°	9373.6	8407.6	6028.3	3426.4	1600.0	894.3	711.3	675.5	664.2	664.2	667.9
15°	9422.7	8184.9	5109.4	2179.2	920.8	675.5	620.8	609.4	609.4	611.3	615.1
17.5°	9417.0	7901.9	4103.8	1318.9	688.7	598.1	566.0	556.6	554.7	558.5	560.4
20°	9347.2	7532.1	3094.3	869.8	600.0	545.3	513.2	496.2	494.3	498.1	501.9
22.5°	9215.1	7075.5	2213.2	669.8	541.5	494.3	454.7	439.6	439.6	443.4	447.2
25°	9054.7	6517.0	1513.2	567.9	488.7	439.6	401.9	388.7	392.5	401.9	403.8
27.5°	8854.7	5888.7	1028.3	486.8	424.5	384.9	356.6	347.2	356.6	369.8	373.6
30°	8683.0	5234.0	734.0	420.8	360.4	332.1	315.1	315.1	328.3	352.8	358.5
32.5°	8551.0	4600.0	566.0	371.7	313.2	288.7	279.2	288.7	309.4	334.0	339.6
35°	8534.0	4077.4	479.2	332.1	279.2	254.7	250.9	267.9	288.7	307.5	311.3
37.5°	8664.2	3594.3	432.1	300.0	249.1	226.4	222.6	243.4	264.2	286.8	292.5
40°	8911.3	3215.1	398.1	269.8	224.5	200.0	192.5	207.5	235.8	266.0	273.6
42.5°	9232.1	2901.9	360.4	239.6	200.0	166.0	156.6	173.6	203.8	235.8	245.3
45°	9537.7	2632.1	318.9	205.7	167.9	128.3	124.5	147.2	162.3	194.3	201.9
47.5°	9705.7	2394.3	283.0	167.9	130.2	103.8	103.8	109.4	124.5	162.3	169.8
50°	9649.1	2203.8	245.3	124.5	90.6	79.2	79.2	77.4	100.0	130.2	135.8
52.5°	9535.9	2094.3	211.3	96.2	62.3	56.6	50.9	56.6	69.8	83.0	84.9
55°	9518.9	2075.5	177.4	77.4	43.4	37.7	28.3	28.3	28.3	26.4	22.6
57.5°	9651.0	2105.7	149.1	62.3	32.1	24.5	15.1	0.0	0.0	0.0	0.0
60°	9786.8	2137.7	128.3	43.4	22.6	13.2	1.9	0.0	0.0	0.0	0.0
62.5°	9560.4	2066.0	107.5	26.4	17.0	5.7	0.0	0.0	0.0	0.0	0.0
65°	8398.1	1758.5	84.9	18.9	11.3	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	5973.6	1177.4	56.6	11.3	1.9	0.0	0.0	0.0	0.0	0.0	0.0
70°	2726.4	492.5	35.8	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	583.0	152.8	24.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	118.9	111.3	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	37.7	175.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	22.6	126.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	3.8	18.9	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)