

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: P300684

Luminaire Tested: **GLNA-AF-05-LED-E1-AFL-7027-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300684
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-05-LED-E1-AFL-7027-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K 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: 15530 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 210
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

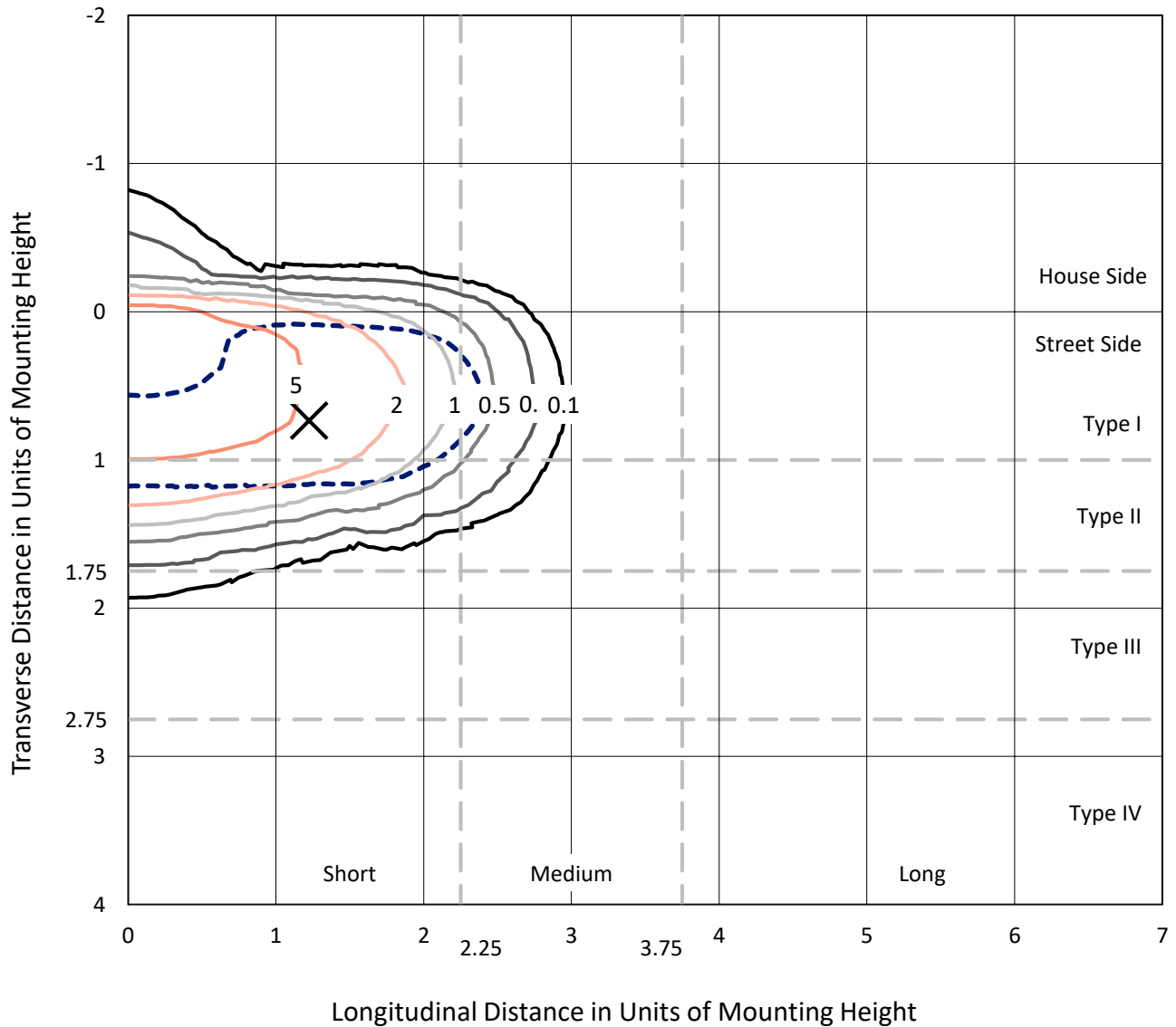


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

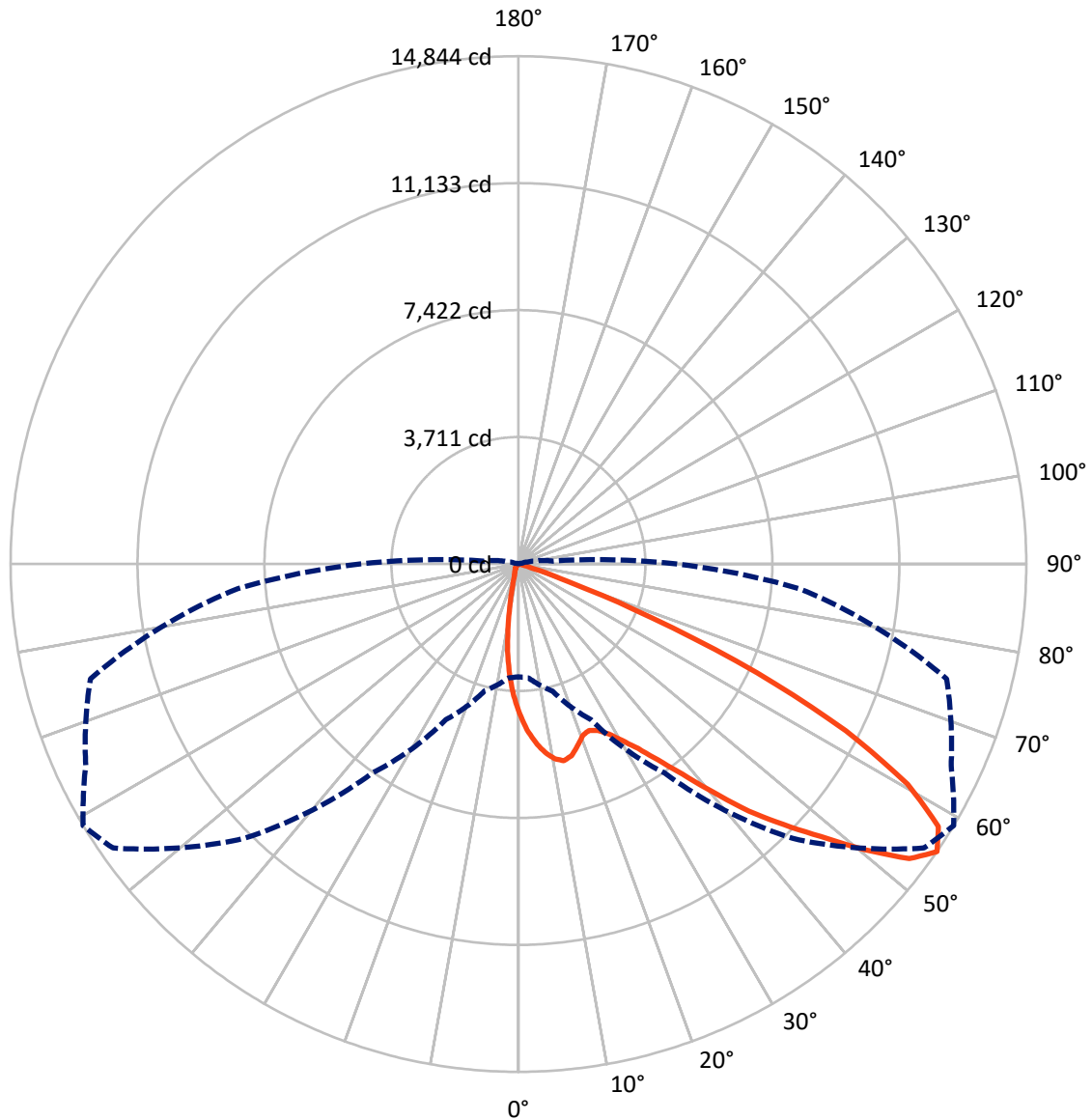


Based on 25 foot mounting height. Maximum calculated value = 8.7 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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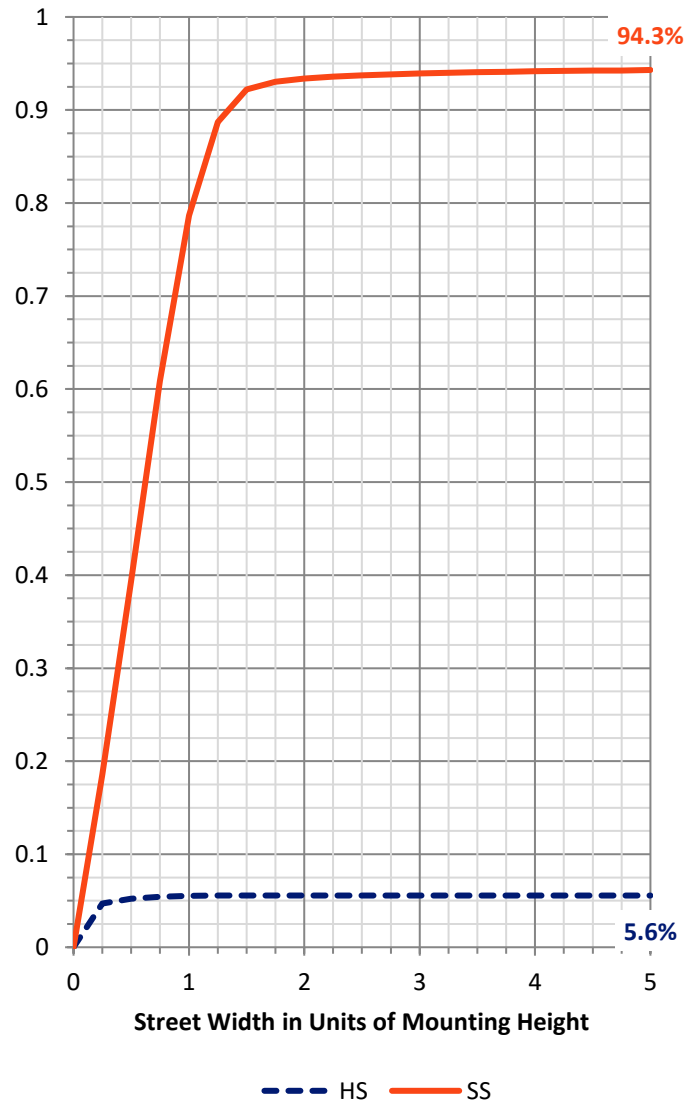
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	867.4	0.0	867.4
	% Fixture	5.6	0.0	5.6
Street Side	Lumens	14662.6	0.0	14662.6
	% Fixture	94.4	0.0	94.4
Total	Lumens	15530.0	0.0	15530.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	366.2	2.4
10°-20°	876.7	5.6
20°-30°	1491.8	9.6
30°-40°	2565.6	16.5
40°-50°	3961.1	25.5
50°-60°	3982.1	25.6
60°-70°	2042.1	13.1
70°-80°	221.3	1.4
80°-90°	23.1	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°	15530.0	100.0
0°-180°	15530.0	100.0



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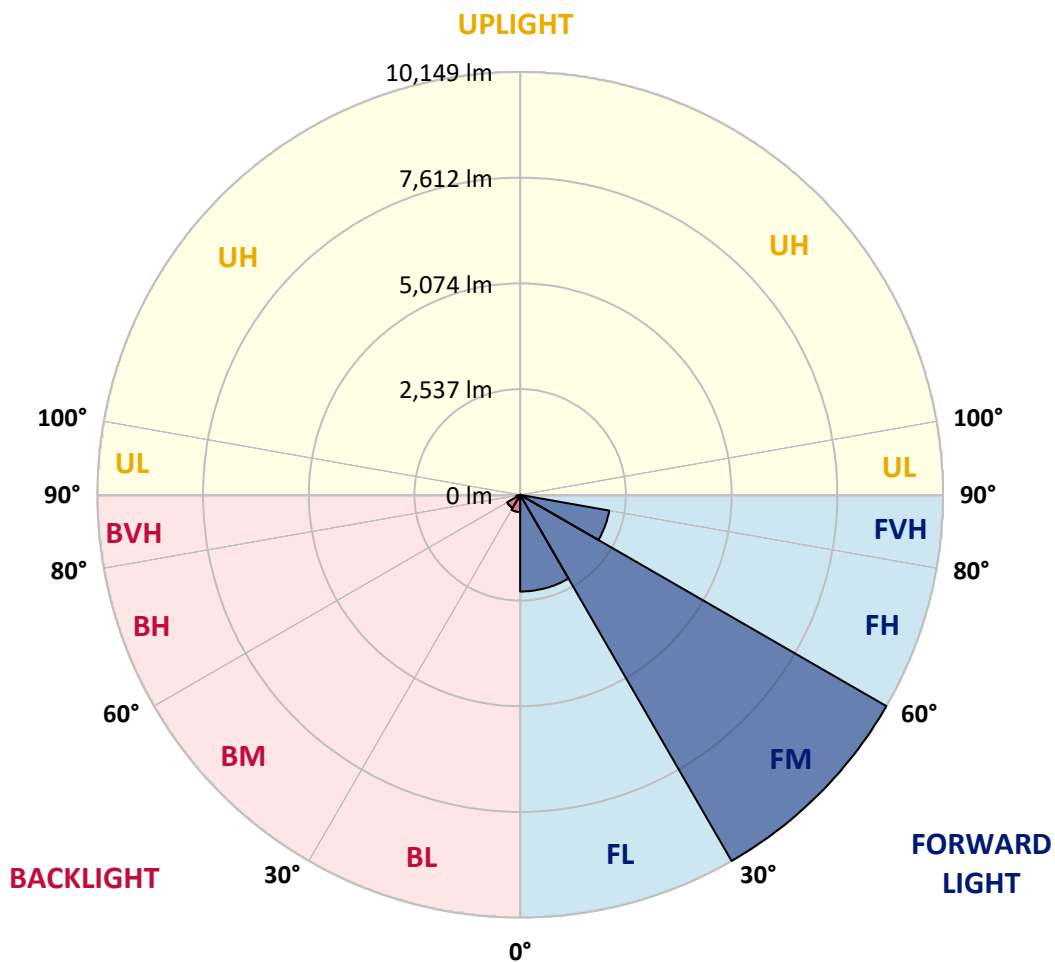
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2320.7	14.9			
FM	(30°-60°)	10148.8	65.3			
FH	(60°-80°)	2170.4	14.0			G2/5000
FVH	(80°-90°)	22.7	0.1			G1/100
BL	(0°-30°)	414.0	2.7	B1/500		
BM	(30°-60°)	360.0	2.3	B1/1000		
BH	(60°-80°)	92.9	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°	4371.7	4371.7	4371.7	4371.7	4371.7	4371.7	4371.7	4371.7	4371.7	4371.7	4371.7
2.5°	5172.7	5117.7	5101.2	5090.2	5039.8	4976.5	4890.4	4850.1	4767.6	4634.7	4471.5
5°	5646.5	5636.4	5599.7	5579.6	5525.5	5435.7	5298.2	5232.2	5101.2	4877.6	4585.2
7.5°	5439.4	5502.6	5553.0	5637.3	5743.6	5740.0	5624.5	5555.8	5409.1	5114.0	4711.7
10°	4639.3	4690.6	4773.1	4964.6	5355.0	5699.6	5835.3	5785.8	5668.5	5331.2	4833.6
12.5°	4482.5	4477.0	4491.7	4547.6	4752.0	5243.2	5799.5	5899.4	5875.6	5530.1	4949.0
15°	4565.9	4559.5	4557.7	4576.9	4626.4	4833.6	5531.0	5817.9	6002.1	5714.3	5047.1
17.5°	4799.7	4772.2	4757.5	4741.9	4727.2	4778.6	5208.4	5589.7	6021.3	5875.6	5128.7
20°	5200.2	5154.3	5100.3	5012.3	4929.8	4904.1	5072.8	5355.0	5952.6	5998.4	5181.8
22.5°	5703.3	5644.7	5551.2	5390.8	5223.1	5125.9	5139.7	5280.8	5849.9	6132.2	5206.6
25°	6268.8	6193.6	6069.0	5846.3	5599.7	5427.4	5337.6	5387.1	5803.2	6288.9	5235.0
27.5°	6874.6	6791.2	6628.0	6324.7	6045.2	5812.4	5629.1	5622.7	5882.9	6494.2	5280.8
30°	7474.9	7462.1	7249.4	6928.7	6558.4	6275.2	6011.2	5977.3	6105.6	6778.4	5371.5
32.5°	8275.9	8179.7	7919.4	7589.4	7162.4	6822.3	6509.8	6431.0	6447.5	7109.2	5511.8
35°	9285.9	9180.5	8813.9	8358.4	7880.9	7479.5	7133.9	7026.7	6986.4	7650.8	5748.2
37.5°	9938.4	9936.6	9706.5	9242.8	8730.5	8287.8	7912.0	7786.5	7704.9	8305.2	6114.8
40°	9955.8	9998.9	10029.1	10024.6	9659.8	9252.0	8918.4	8763.5	8573.8	9179.6	6588.6
42.5°	9421.5	9532.4	9799.1	10251.8	10468.1	10305.9	10024.6	9872.4	9590.1	10115.3	7166.0
45°	8699.3	8776.3	9242.8	10076.8	10906.2	11350.7	11136.3	10864.1	10492.0	11091.3	7683.8
47.5°	8375.8	8389.5	8691.1	9606.6	10939.2	12206.7	12336.9	11894.2	11311.3	11877.7	8088.9
50°	7408.9	7433.6	7849.7	8791.9	10552.5	12610.9	13543.0	13123.2	12204.9	12483.5	8236.5
52.5°	5584.2	5619.0	6146.9	7452.9	9489.3	12438.6	14406.3	14304.6	13183.7	12779.5	8244.7
55°	3294.8	3340.6	3844.7	5016.9	7463.9	11342.5	14470.4	14844.4	13956.3	12954.6	8231.9
57.5°	1538.8	1570.9	1859.6	2584.5	4642.0	8964.2	13504.5	14474.1	14382.5	13047.1	8322.6
60°	817.5	826.7	896.3	1119.0	2097.8	5684.1	11619.2	13070.0	13993.9	13175.4	8433.5
62.5°	625.0	627.8	624.1	650.7	881.7	2523.1	8782.7	10744.9	12429.4	13079.2	8310.7
65°	541.6	546.2	520.6	514.2	565.5	900.0	5217.6	7659.1	9767.0	11780.5	7474.0
67.5°	485.7	487.6	456.4	429.8	439.0	486.7	2058.4	4192.9	6464.9	8635.2	5417.4
70°	447.2	445.4	411.5	369.3	357.4	332.7	654.4	1537.0	3089.5	4379.0	2519.4
72.5°	395.9	396.8	380.3	325.4	296.9	232.8	303.4	448.2	922.0	1193.3	590.2
75°	351.0	346.4	326.3	291.4	244.7	153.1	150.3	199.8	284.1	282.3	127.4
77.5°	253.9	249.3	255.7	239.2	187.9	99.0	75.2	96.2	115.5	111.8	35.7
80°	186.0	183.3	165.0	198.9	165.9	67.8	46.7	51.3	59.6	50.4	11.0
82.5°	127.4	126.5	116.4	110.0	94.4	41.2	29.3	32.1	38.5	28.4	5.5
85°	20.2	22.9	84.3	66.9	55.9	18.3	20.2	22.0	25.7	15.6	1.8
87.5°	0.0	0.0	39.4	34.8	11.0	7.3	11.9	12.8	12.8	8.2	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°	4371.7	4371.7	4371.7	4371.7	4371.7	4371.7	4371.7	4371.7	4371.7	4371.7	4371.7
2.5°	4388.1	4296.5	4126.9	3951.9	3789.7	3596.3	3463.4	3363.5	3248.0	3216.9	3284.7
5°	4418.4	4245.2	3880.4	3483.6	3110.6	2697.2	2381.0	2130.8	1904.5	1827.5	1897.1
7.5°	4466.0	4208.5	3613.7	2960.3	2311.4	1666.2	1224.4	933.9	748.8	693.8	723.1
10°	4513.7	4155.4	3304.9	2340.7	1453.6	811.1	527.9	421.6	382.2	373.9	378.5
12.5°	4553.1	4083.9	2928.2	1664.3	777.2	434.4	345.5	328.1	322.6	322.6	324.4
15°	4576.9	3975.7	2481.9	1058.5	447.2	328.1	301.5	296.0	296.0	296.9	298.8
17.5°	4574.2	3838.3	1993.4	640.6	334.5	290.5	274.9	270.4	269.4	271.3	272.2
20°	4540.3	3658.6	1503.0	422.5	291.4	264.9	249.3	241.0	240.1	242.0	243.8
22.5°	4476.1	3436.8	1075.0	325.4	263.0	240.1	220.9	213.5	213.5	215.4	217.2
25°	4398.2	3165.6	735.0	275.9	237.4	213.5	195.2	188.8	190.6	195.2	196.1
27.5°	4301.1	2860.4	499.5	236.5	206.2	187.0	173.2	168.6	173.2	179.6	181.5
30°	4217.7	2542.3	356.5	204.4	175.0	161.3	153.1	153.1	159.5	171.4	174.1
32.5°	4153.5	2234.4	274.9	180.5	152.1	140.2	135.6	140.2	150.3	162.2	165.0
35°	4145.3	1980.5	232.8	161.3	135.6	123.7	121.9	130.1	140.2	149.4	151.2
37.5°	4208.5	1745.9	209.9	145.7	121.0	110.0	108.1	118.2	128.3	139.3	142.1
40°	4328.6	1561.7	193.4	131.1	109.1	97.1	93.5	100.8	114.6	129.2	132.9
42.5°	4484.4	1409.6	175.0	116.4	97.1	80.7	76.1	84.3	99.0	114.6	119.1
45°	4632.9	1278.5	154.9	99.9	81.6	62.3	60.5	71.5	78.8	94.4	98.1
47.5°	4714.4	1163.0	137.5	81.6	63.2	50.4	50.4	53.2	60.5	78.8	82.5
50°	4686.9	1070.5	119.1	60.5	44.0	38.5	38.5	37.6	48.6	63.2	66.0
52.5°	4631.9	1017.3	102.6	46.7	30.2	27.5	24.7	27.5	33.9	40.3	41.2
55°	4623.7	1008.1	86.1	37.6	21.1	18.3	13.7	13.7	13.7	12.8	11.0
57.5°	4687.8	1022.8	72.4	30.2	15.6	11.9	7.3	0.0	0.0	0.0	0.0
60°	4753.8	1038.4	62.3	21.1	11.0	6.4	0.9	0.0	0.0	0.0	0.0
62.5°	4643.8	1003.6	52.2	12.8	8.2	2.7	0.0	0.0	0.0	0.0	0.0
65°	4079.3	854.2	41.2	9.2	5.5	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	2901.6	571.9	27.5	5.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0
70°	1324.3	239.2	17.4	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	283.2	74.2	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	57.7	54.1	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	18.3	85.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	11.0	61.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.8	9.2	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)