

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: P299509

Luminaire Tested: **GLNA-AF-10-LED-E1-5NQ-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299509
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-10-LED-E1-5NQ-7027-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34665 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

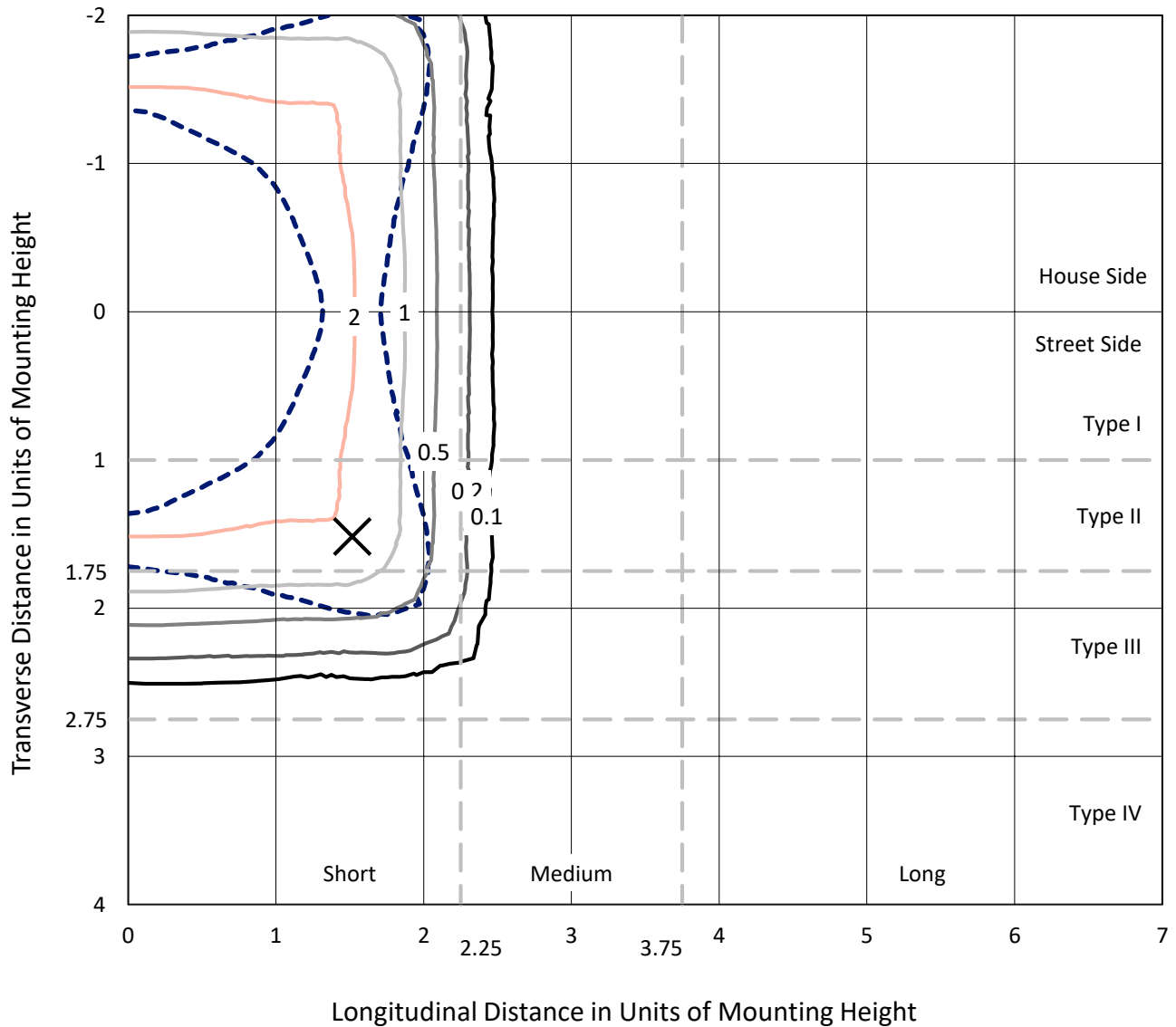
Input Watts (W): 323
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

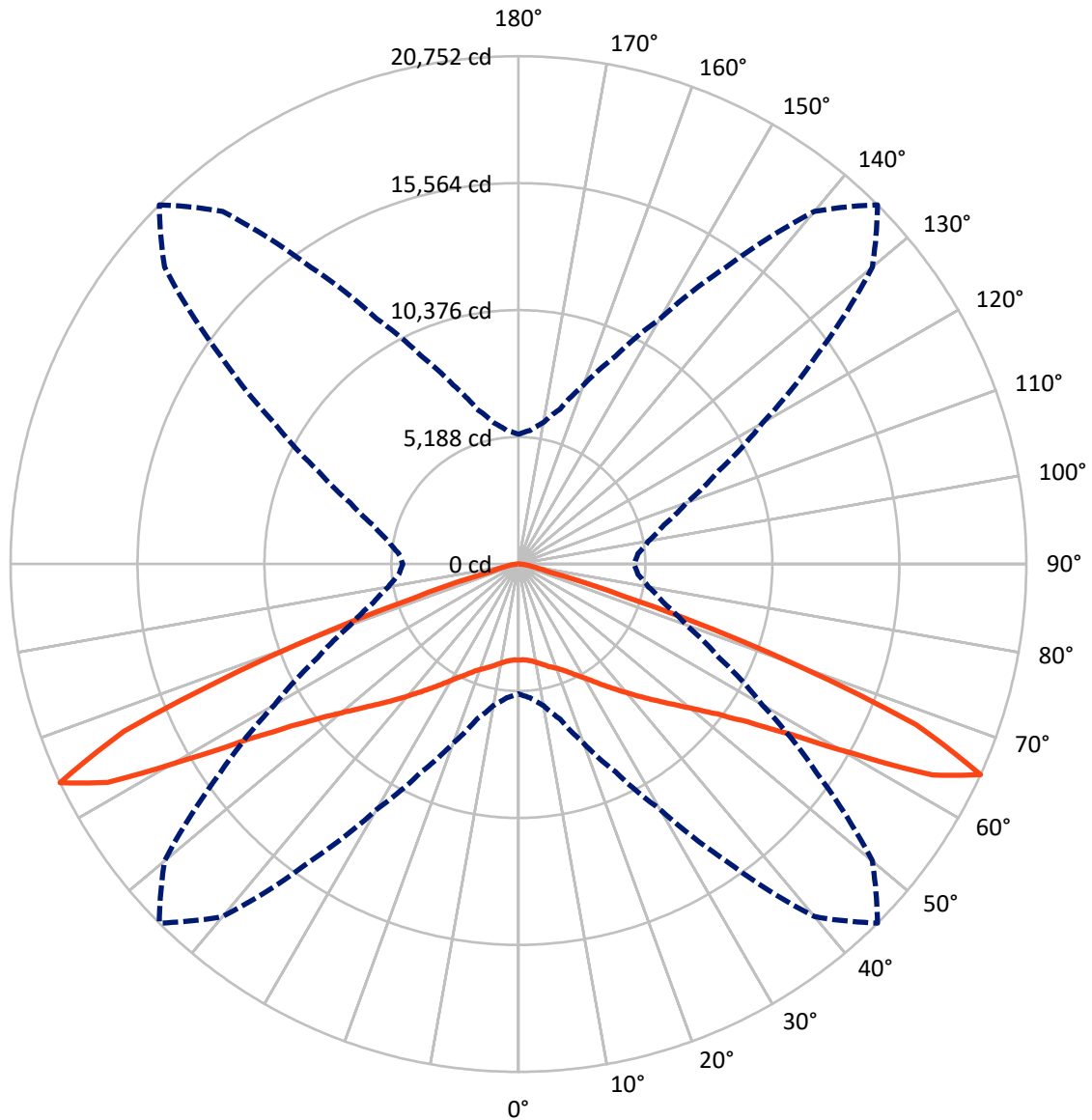
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.4 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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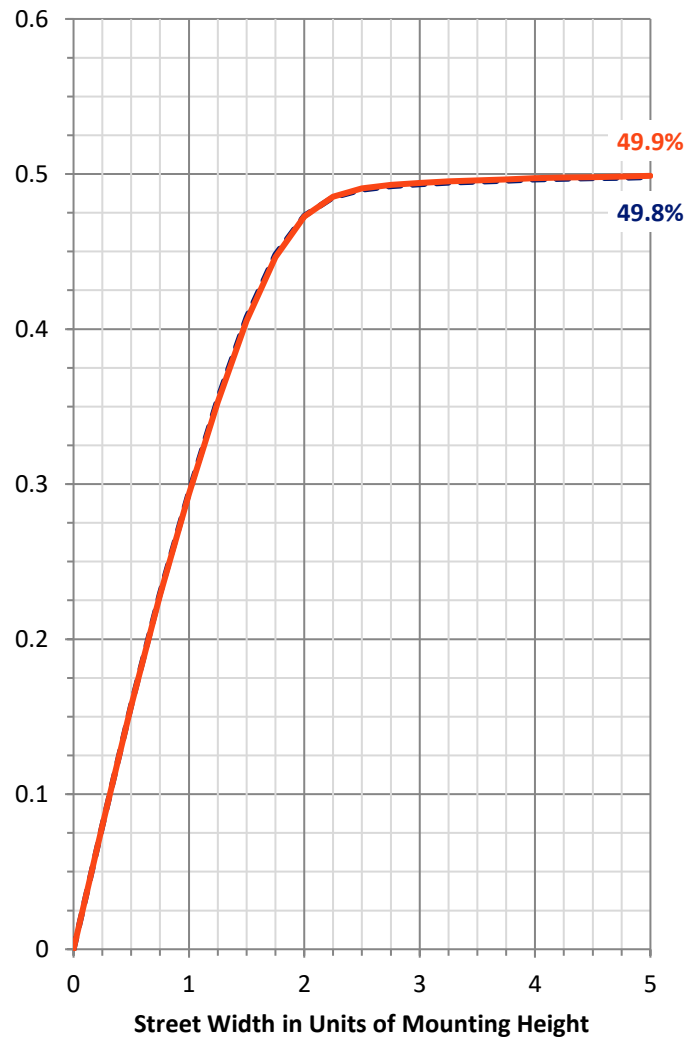
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17332.5	0.0	17332.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	17332.5	0.0	17332.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	34665.0	0.0	34665.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	382.3	1.1
10°-20°	1226.1	3.5
20°-30°	2292.6	6.6
30°-40°	3877.4	11.2
40°-50°	6340.0	18.3
50°-60°	10081.6	29.1
60°-70°	9113.1	26.3
70°-80°	1153.3	3.3
80°-90°	198.4	0.6
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°	34665.0	100.0
0°-180°	34665.0	100.0



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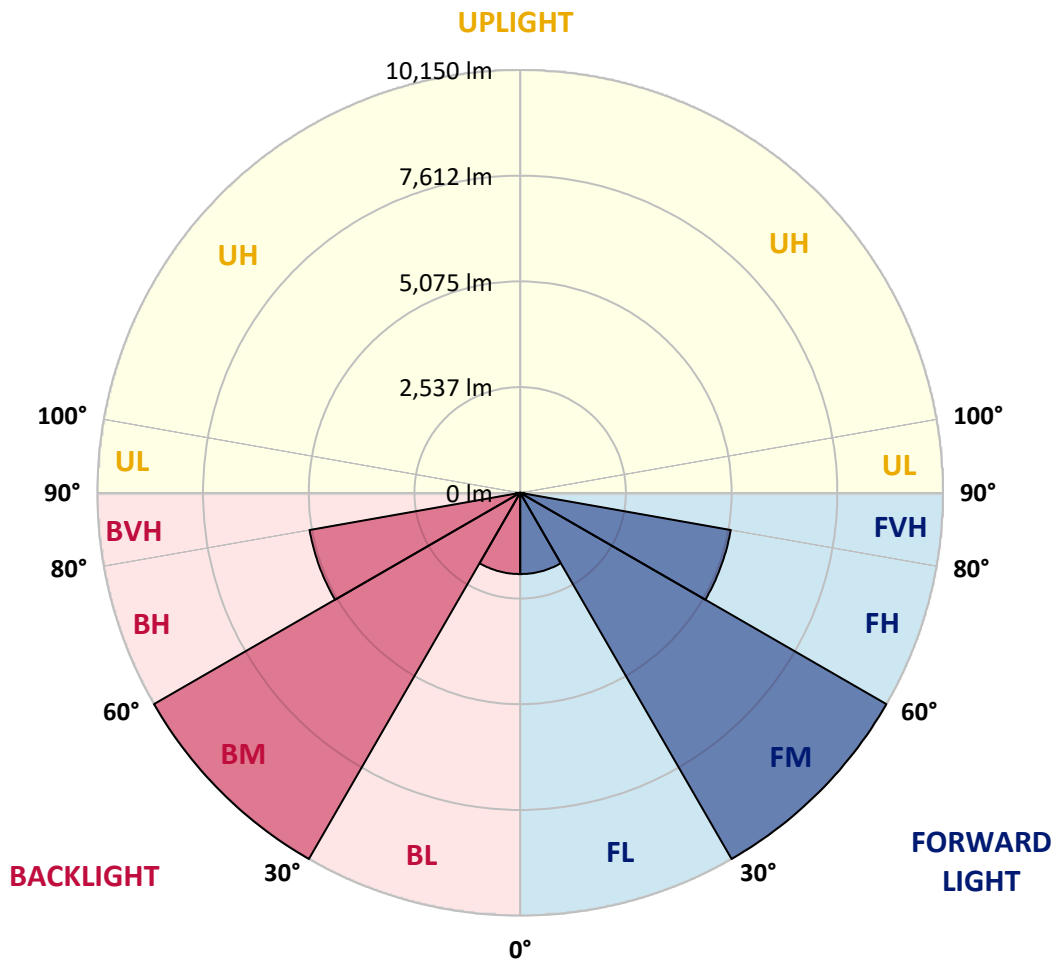
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1950.5	5.6			
FM	(30°-60°)	10149.6	29.3			
FH	(60°-80°)	5133.2	14.8			G3/7500
FVH	(80°-90°)	99.2	0.3			G1/100
BL	(0°-30°)	1950.5	5.6	B3/2500		
BM	(30°-60°)	10149.6	29.3	B5		
BH	(60°-80°)	5133.2	14.8	B5		G3/7500
BVH	(80°-90°)	99.2	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3922.4	3922.4	3922.4	3922.4	3922.4	3922.4	3922.4	3922.4	3922.4	3922.4	3922.4
2.5°	3925.6	3928.9	3932.1	3928.9	3932.1	3927.2	3924.0	3928.9	3924.0	3919.1	3922.4
5°	3959.7	3961.3	3961.3	3956.5	3961.3	3958.1	3953.2	3959.7	3954.8	3950.0	3953.2
7.5°	4016.5	4023.0	4018.1	4013.3	4016.5	4013.3	4010.0	4011.7	4010.0	4005.2	4006.8
10°	4092.8	4097.7	4094.5	4092.8	4096.1	4094.5	4091.2	4089.6	4091.2	4086.3	4086.3
12.5°	4185.4	4183.7	4182.1	4183.7	4188.6	4188.6	4187.0	4188.6	4191.9	4193.5	4190.2
15°	4276.3	4279.5	4279.5	4279.5	4289.3	4297.4	4302.3	4305.5	4312.0	4313.6	4307.1
17.5°	4389.9	4389.9	4388.3	4389.9	4399.7	4412.7	4417.5	4424.0	4430.5	4435.4	4427.3
20°	4516.6	4519.8	4519.8	4523.1	4536.0	4550.7	4550.7	4553.9	4550.7	4553.9	4549.0
22.5°	4670.8	4680.5	4680.5	4682.2	4695.1	4713.0	4708.1	4713.0	4704.9	4711.4	4704.9
25°	4872.1	4886.7	4883.5	4883.5	4893.2	4904.6	4906.2	4915.9	4914.3	4922.4	4917.6
27.5°	5099.4	5122.1	5128.6	5127.0	5133.5	5144.9	5148.1	5159.5	5153.0	5159.5	5156.2
30°	5372.1	5381.9	5394.9	5399.7	5407.9	5419.2	5419.2	5420.8	5412.7	5422.5	5427.3
32.5°	5654.6	5672.5	5685.5	5714.7	5729.3	5737.4	5735.8	5739.1	5730.9	5743.9	5753.7
35°	6028.0	6041.0	6062.1	6084.9	6104.3	6102.7	6097.8	6099.5	6099.5	6110.8	6120.6
37.5°	6477.7	6481.0	6508.6	6541.1	6550.8	6541.1	6511.8	6505.3	6490.7	6505.3	6521.6
40°	6953.4	6964.8	7020.0	7041.1	7046.0	7028.1	6985.9	6961.5	6929.1	6946.9	6969.7
42.5°	7451.8	7474.6	7524.9	7562.2	7578.5	7567.1	7508.7	7471.3	7429.1	7438.8	7461.6
45°	8003.8	8031.4	8102.9	8138.6	8169.4	8151.6	8094.7	8037.9	7971.4	7976.2	8011.9
47.5°	8620.8	8648.4	8740.9	8801.0	8817.2	8813.9	8750.6	8672.7	8581.8	8578.5	8609.4
50°	9312.4	9340.0	9455.2	9547.8	9594.8	9590.0	9515.3	9404.9	9294.5	9296.1	9335.1
52.5°	9987.7	10021.8	10142.0	10301.1	10393.6	10460.2	10414.7	10310.8	10176.1	10179.3	10215.0
55°	10620.9	10677.7	10815.7	11031.6	11203.7	11390.4	11444.0	11440.8	11359.6	11382.3	11418.0
57.5°	10927.7	11012.2	11224.8	11565.8	11916.4	12296.3	12617.8	12858.1	12960.4	13114.6	13078.9
60°	10346.5	10481.3	10794.6	11296.3	11989.5	12781.8	13630.9	14460.5	15168.3	15702.4	15395.6
62.5°	8471.4	8646.7	9026.6	9669.5	10718.3	11986.3	13611.4	15572.6	17709.1	18998.1	18077.6
65°	5300.7	5482.5	5868.9	6557.3	7784.7	9361.1	11565.8	14816.0	18808.2	20751.5	18878.0
67.5°	2066.7	2165.7	2375.2	2815.1	3737.3	5140.0	7352.8	11041.4	15816.1	17519.1	15522.2
70°	1035.8	1045.5	1084.5	1165.7	1363.7	1771.2	2695.0	5118.9	9070.5	10955.3	8744.1
72.5°	748.4	750.1	769.5	805.3	868.6	959.5	1134.8	1566.7	2949.9	4508.4	2764.8
75°	573.1	579.6	591.0	610.4	644.5	690.0	753.3	902.7	1118.6	1297.2	1091.0
77.5°	441.6	454.6	462.7	480.6	501.7	532.5	550.4	607.2	706.2	743.6	732.2
80°	336.1	347.4	365.3	379.9	394.5	409.1	402.6	428.6	480.6	511.4	495.2
82.5°	214.3	227.3	279.2	292.2	298.7	308.5	297.1	298.7	321.5	340.9	321.5
85°	138.0	146.1	177.0	193.2	194.8	201.3	196.4	185.1	185.1	168.8	189.9
87.5°	63.3	64.9	79.6	94.2	97.4	87.7	86.0	82.8	66.6	63.3	68.2
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3922.4	3922.4	3922.4	3922.4	3922.4	3922.4	3922.4	3922.4
2.5°	3920.7	3924.0	3925.6	3930.5	3932.1	3932.1	3933.7	3937.0
5°	3951.6	3956.5	3958.1	3964.6	3966.2	3964.6	3967.8	3969.4
7.5°	4006.8	4014.9	4018.1	4024.6	4019.8	4026.3	4027.9	4027.9
10°	4088.0	4096.1	4097.7	4104.2	4100.9	4104.2	4104.2	4100.9
12.5°	4195.1	4196.7	4191.9	4196.7	4190.2	4193.5	4188.6	4185.4
15°	4313.6	4308.8	4297.4	4297.4	4287.6	4289.3	4287.6	4286.0
17.5°	4428.9	4419.2	4411.0	4407.8	4399.7	4398.0	4393.2	4393.2
20°	4555.5	4550.7	4545.8	4539.3	4531.2	4523.1	4521.4	4524.7
22.5°	4708.1	4706.5	4706.5	4703.3	4691.9	4683.8	4678.9	4678.9
25°	4912.7	4898.1	4898.1	4896.5	4891.6	4886.7	4877.0	4881.8
27.5°	5143.2	5135.1	5141.6	5140.0	5135.1	5135.1	5128.6	5128.6
30°	5427.3	5424.1	5433.8	5425.7	5409.5	5407.9	5401.4	5393.2
32.5°	5755.3	5752.0	5766.7	5756.9	5730.9	5716.3	5703.3	5696.8
35°	6120.6	6122.2	6140.1	6133.6	6104.3	6094.6	6071.9	6068.6
37.5°	6520.0	6545.9	6576.8	6583.3	6558.9	6552.4	6528.1	6515.1
40°	6989.1	7023.2	7070.3	7081.7	7055.7	7050.8	7016.7	6998.9
42.5°	7489.2	7547.6	7606.1	7615.8	7589.8	7563.9	7531.4	7518.4
45°	8047.7	8117.5	8193.8	8213.3	8174.3	8143.4	8101.2	8101.2
47.5°	8674.3	8762.0	8848.0	8901.6	8865.9	8833.4	8783.1	8750.6
50°	9414.6	9534.8	9646.8	9702.0	9645.2	9583.5	9495.8	9466.6
52.5°	10343.3	10473.2	10570.6	10541.3	10453.7	10367.6	10271.8	10232.9
55°	11528.4	11572.3	11572.3	11461.9	11286.5	11142.0	10991.1	10940.7
57.5°	13010.7	12841.8	12582.1	12252.5	11838.5	11478.1	11234.6	11119.3
60°	14752.7	13940.9	13023.7	12122.6	11382.3	10771.9	10409.8	10244.2
62.5°	15913.5	13790.0	11952.2	10505.6	9440.6	8705.2	8205.1	8010.3
65°	14872.8	11500.8	9039.6	7309.0	6148.2	5399.7	4904.6	4722.7
67.5°	10893.6	7206.7	4813.7	3449.9	2527.8	2016.4	1813.4	1729.0
70°	4890.0	2537.5	1555.3	1214.4	1047.2	961.1	923.8	910.8
72.5°	1474.1	1066.6	899.4	811.7	745.2	703.0	672.1	668.9
75°	889.7	740.3	657.5	605.6	563.4	529.3	513.0	508.2
77.5°	621.8	543.9	504.9	467.6	435.1	409.1	394.5	383.1
80°	436.7	399.4	381.5	360.4	339.3	315.0	293.9	284.1
82.5°	292.2	284.1	284.1	271.1	253.3	230.5	188.3	178.6
85°	188.3	186.7	189.9	185.1	172.1	147.7	121.8	115.3
87.5°	87.7	89.3	99.0	97.4	94.2	77.9	61.7	58.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)