

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P135640

Luminaire Tested: **LD6A10D010TE ERM6A10827 6LM111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135640
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23372)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A10D010TE ERM6A10827 6LM111H
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE
SEMI-SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 2700K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1050.0 lumens
Efficiency: N/A
Efficacy: 75.0 lumens/watt
Spacing Criteria (0/90/45): 0.9 / 0.96 / 0.92
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

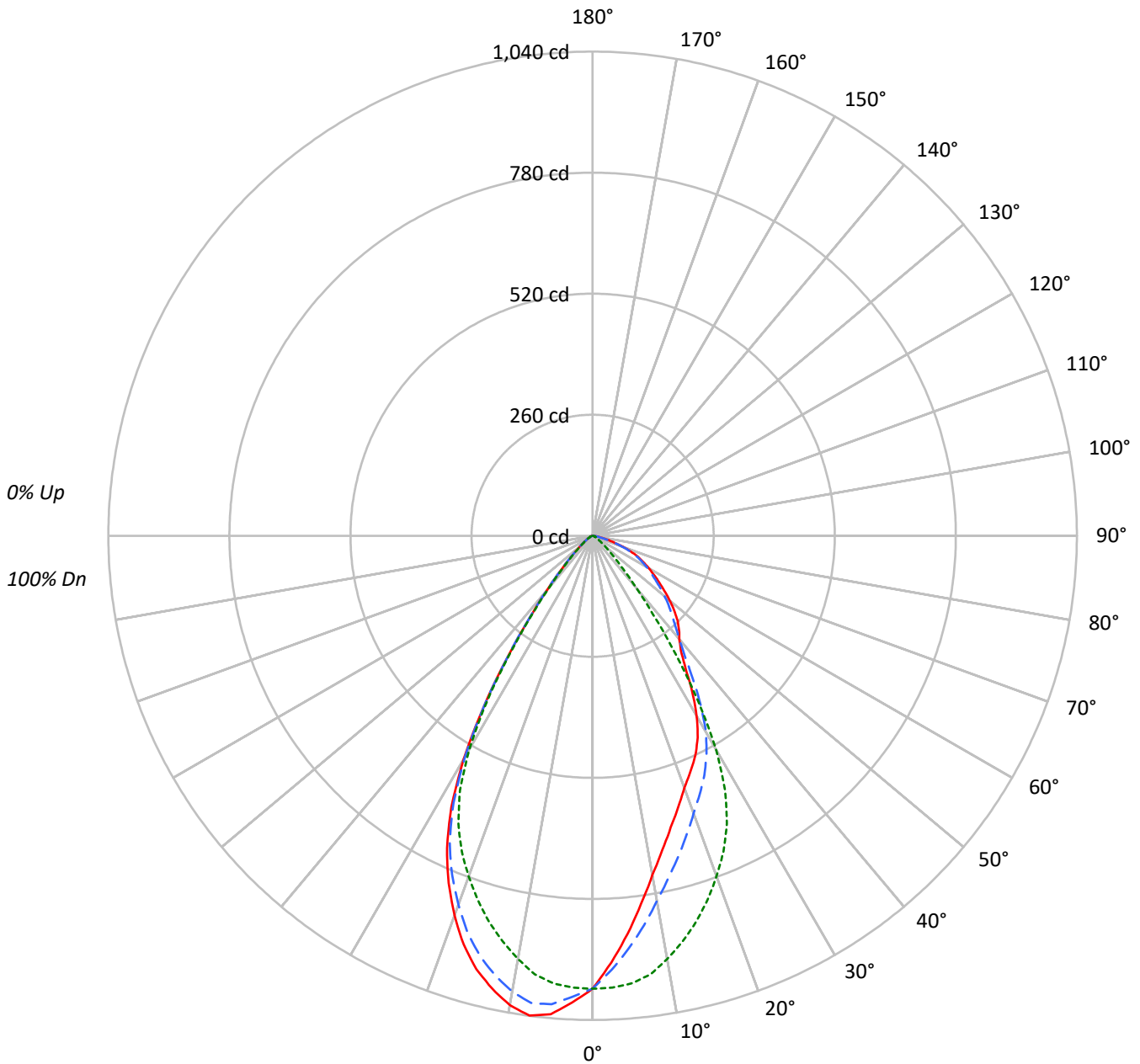
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91																			
2	106	100	95	91	103	98	94	90	95	91	88	92	89	86	89	87	84	83																			
3	99	92	86	81	97	90	85	81	88	83	79	85	81	78	83	80	77	75																			
4	93	85	78	73	91	83	77	73	81	76	72	79	75	71	77	73	70	68																			
5	88	78	72	67	86	77	71	66	75	70	66	74	69	65	72	68	64	63																			
6	83	73	66	61	81	72	65	61	70	65	60	69	64	60	67	63	59	58																			
7	78	68	61	56	77	67	61	56	66	60	56	64	59	55	63	59	55	53																			
8	74	63	57	52	73	63	56	52	62	56	52	60	55	51	59	55	51	50																			
9	70	59	53	48	69	59	53	48	58	52	48	57	52	48	56	51	48	46																			
10	67	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	63466	63466	63466
5°	56230	63191	67559
10°	49010	61146	67817
15°	43781	57992	65097
20°	39976	54029	60235
25°	37540	49101	53255
30°	33659	39881	41667
35°	27660	24682	25319
40°	24664	12136	12809
45°	23795	6053	6468
50°	21933	3217	3441
55°	19814	1934	2059
60°	18150	1331	1331
65°	16595	1050	880
70°	13372	858	649
75°	8268	580	277
80°	4659	413	0
85°	2545	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.2	8.5
10°-20°	231.7	22.1
20°-30°	294.8	28.1
30°-40°	211.2	20.1
40°-50°	105.4	10.0
50°-60°	63.8	6.1
60°-70°	39.0	3.7
70°-80°	13.5	1.3
80°-90°	1.4	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°-30°	615.7	58.6
0°-40°	827.0	78.8
0°-60°	996.1	94.9
0°-90°	1050.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1050.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	973	973	973	973	973	
5°	859	890	965	1010	1032	78
15°	648	713	859	934	964	182
25°	522	568	682	726	740	238
35°	347	374	310	318	318	222
45°	258	241	66	72	70	197
55°	174	164	17	18	18	157
65°	108	104	7	6	6	105
75°	33	29	2	1	1	38
85°	3	2	0	0	0	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	972.8	972.8	972.8	972.8	972.8	972.8	972.8	972.8	972.8	972.8	972.8
2.5°	917.4	918.5	920.8	918.5	919.6	925.3	923.0	924.2	927.6	933.2	929.8
5°	858.6	859.7	865.3	862.0	864.2	871.0	871.0	875.5	882.3	890.2	890.2
7.5°	797.5	799.7	805.4	803.1	806.5	815.6	816.7	823.5	832.5	843.9	849.5
10°	739.8	742.0	747.7	746.6	751.1	760.1	764.7	771.5	782.8	796.3	803.1
12.5°	691.1	693.4	697.9	697.9	703.6	712.6	717.2	726.2	737.5	752.2	761.3
15°	648.2	651.6	656.1	656.1	661.7	670.8	676.4	684.4	696.8	712.6	722.8
17.5°	610.8	612.0	616.5	616.5	622.1	631.2	636.9	644.8	657.2	671.9	683.2
20°	575.8	576.9	581.4	582.6	587.1	595.0	600.7	608.6	619.9	634.6	644.8
22.5°	548.6	550.9	554.3	555.4	557.7	565.6	572.4	578.0	588.2	600.7	610.8
25°	521.5	522.6	526.0	527.1	530.5	536.2	540.7	546.4	555.4	567.8	575.8
27.5°	488.7	492.1	493.2	494.3	497.7	502.2	506.8	511.3	519.2	529.4	536.2
30°	446.8	447.9	451.3	453.6	457.0	461.5	467.2	471.7	478.5	486.4	490.9
32.5°	398.2	399.3	402.7	405.0	410.6	415.1	419.7	423.1	427.6	432.1	432.1
35°	347.3	350.7	351.8	355.2	360.8	365.4	368.8	369.9	372.2	374.4	366.5
37.5°	311.1	313.3	315.6	317.9	322.4	325.8	328.0	328.0	326.9	324.6	314.5
40°	289.6	290.7	293.0	294.1	298.6	300.9	300.9	298.6	294.1	288.4	272.6
42.5°	274.9	276.0	277.1	278.3	280.5	281.7	280.5	276.0	270.4	262.4	244.3
45°	257.9	259.0	260.2	260.2	262.4	262.4	261.3	256.8	250.0	240.9	221.7
47.5°	237.5	238.7	239.8	240.9	242.1	242.1	240.9	236.4	229.6	221.7	201.3
50°	216.1	217.2	218.3	218.3	220.6	220.6	219.4	214.9	209.3	201.3	183.2
52.5°	194.6	195.7	195.7	198.0	198.0	198.0	196.8	192.3	187.8	182.1	165.2
55°	174.2	175.3	175.3	177.6	178.7	177.6	176.5	173.1	168.5	164.0	150.4
57.5°	156.1	157.2	157.2	158.4	159.5	158.4	157.2	155.0	152.7	148.2	136.9
60°	139.1	140.3	140.3	141.4	141.4	140.3	140.3	138.0	135.7	133.5	123.3
62.5°	123.3	123.3	123.3	124.4	124.4	123.3	123.3	121.0	119.9	118.8	110.9
65°	107.5	107.5	107.5	107.5	107.5	105.2	105.2	104.1	102.9	104.1	97.3
67.5°	89.4	89.4	88.2	88.2	88.2	86.0	86.0	86.0	84.8	86.0	80.3
70°	70.1	70.1	69.0	69.0	67.9	65.6	65.6	65.6	64.5	65.6	62.2
72.5°	49.8	50.9	48.6	48.6	47.5	45.2	46.4	45.2	46.4	46.4	44.1
75°	32.8	33.9	31.7	31.7	30.5	29.4	29.4	29.4	30.5	29.4	28.3
77.5°	20.4	21.5	20.4	20.4	19.2	18.1	18.1	18.1	18.1	18.1	17.0
80°	12.4	12.4	12.4	11.3	11.3	10.2	10.2	10.2	10.2	10.2	9.0
82.5°	6.8	6.8	6.8	6.8	6.8	5.7	5.7	5.7	5.7	5.7	4.5
85°	3.4	3.4	3.4	3.4	3.4	2.3	2.3	2.3	2.3	2.3	2.3
87.5°	1.1	1.1	1.1	1.1	1.1	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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	972.8	972.8	972.8	972.8	972.8	972.8	972.8	972.8	972.8	972.8	972.8
2.5°	940.0	944.5	941.1	954.7	952.4	962.6	961.5	971.7	970.5	971.7	973.9
5°	903.8	912.9	914.0	931.0	932.1	947.9	951.3	964.9	967.2	971.7	977.3
7.5°	864.2	877.8	882.3	901.5	908.3	925.3	932.1	950.2	954.7	962.6	969.4
10°	821.2	837.1	843.9	866.5	875.5	894.8	903.8	923.0	929.8	938.9	946.8
12.5°	780.5	797.5	806.5	830.3	842.7	862.0	872.1	892.5	899.3	910.6	918.5
15°	742.0	760.1	770.3	794.1	806.5	828.0	838.2	858.6	866.5	877.8	885.7
17.5°	702.5	720.6	731.9	754.5	770.3	788.4	799.7	820.1	828.0	838.2	846.1
20°	664.0	682.1	692.3	714.9	729.6	747.7	757.9	778.2	783.9	794.1	800.9
22.5°	627.8	644.8	653.8	677.6	690.0	705.9	716.0	734.1	740.9	748.8	753.4
25°	591.6	606.3	613.1	633.5	643.6	658.3	666.3	682.1	688.9	695.7	701.3
27.5°	550.9	558.8	561.1	576.9	584.8	598.4	601.8	616.5	622.1	626.7	631.2
30°	500.0	501.1	494.3	502.2	505.6	515.8	515.8	529.4	533.9	537.3	541.8
32.5°	435.5	428.7	412.9	410.6	408.4	414.0	411.7	423.1	427.6	429.8	433.2
35°	364.2	349.5	323.5	313.3	306.5	305.4	302.0	309.9	313.3	315.6	317.9
37.5°	302.0	280.5	247.7	229.6	218.3	213.8	209.3	213.8	216.1	218.3	220.6
40°	256.8	229.6	191.2	168.5	152.7	145.9	140.3	142.5	144.8	147.1	148.2
42.5°	224.0	193.4	151.6	124.4	108.6	100.7	95.0	96.1	97.3	98.4	100.7
45°	199.1	166.3	123.3	93.9	78.1	70.1	65.6	65.6	66.7	67.9	69.0
47.5°	178.7	143.7	100.7	72.4	57.7	49.8	45.2	45.2	46.4	46.4	47.5
50°	159.5	124.4	82.6	56.6	43.0	36.2	32.8	31.7	32.8	32.8	33.9
52.5°	143.7	109.7	69.0	45.2	32.8	27.1	23.8	23.8	23.8	23.8	23.8
55°	129.0	96.1	57.7	36.2	26.0	21.5	18.1	17.0	17.0	17.0	17.0
57.5°	117.6	86.0	49.8	30.5	21.5	17.0	14.7	13.6	13.6	13.6	13.6
60°	106.3	75.8	43.0	24.9	17.0	14.7	12.4	10.2	10.2	10.2	10.2
62.5°	95.0	65.6	36.2	21.5	14.7	11.3	10.2	7.9	7.9	7.9	7.9
65°	82.6	56.6	30.5	17.0	11.3	9.0	7.9	6.8	6.8	5.7	5.7
67.5°	67.9	45.2	24.9	14.7	10.2	7.9	6.8	5.7	4.5	4.5	4.5
70°	52.0	33.9	19.2	11.3	7.9	6.8	4.5	4.5	3.4	3.4	3.4
72.5°	37.3	23.8	13.6	9.0	5.7	4.5	4.5	3.4	3.4	3.4	2.3
75°	23.8	15.8	9.0	5.7	4.5	3.4	3.4	2.3	2.3	2.3	2.3
77.5°	14.7	10.2	6.8	4.5	3.4	2.3	2.3	2.3	1.1	1.1	1.1
80°	7.9	5.7	3.4	2.3	2.3	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	4.5	3.4	2.3	1.1	1.1	1.1	1.1	1.1	0.0	0.0	0.0
85°	2.3	1.1	1.1	1.1	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	972.8	972.8	972.8	972.8	972.8	972.8	972.8	972.8	972.8	972.8	972.8
2.5°	980.7	986.4	983.0	985.3	995.4	990.9	998.8	998.8	1007.9	1007.9	1001.1
5°	987.5	994.3	995.4	998.8	1012.4	1010.1	1019.2	1021.4	1031.6	1033.9	1028.2
7.5°	983.0	990.9	994.3	1000.0	1013.5	1012.4	1022.6	1027.1	1036.2	1039.5	1035.0
10°	961.5	970.5	975.1	980.7	995.4	994.3	1005.6	1011.3	1019.2	1022.6	1019.2
12.5°	933.2	943.4	947.9	953.6	968.3	967.2	978.5	984.1	990.9	995.4	992.0
15°	901.5	908.3	916.2	921.9	935.5	934.3	945.7	951.3	957.0	962.6	959.2
17.5°	860.8	867.6	875.5	880.1	893.6	893.6	902.7	907.2	915.1	919.6	915.1
20°	814.4	822.4	828.0	831.4	843.9	842.7	851.8	856.3	863.1	866.5	863.1
22.5°	765.8	772.6	777.1	779.4	789.6	788.4	795.2	799.7	805.4	808.8	805.4
25°	710.4	714.9	718.3	719.4	728.5	726.2	735.3	735.3	739.8	743.2	739.8
27.5°	639.1	642.5	644.8	643.6	650.4	647.0	654.9	649.3	658.3	660.6	657.2
30°	547.5	549.7	552.0	547.5	552.0	547.5	554.3	546.4	554.3	557.7	554.3
32.5°	438.9	438.9	441.2	435.5	437.8	433.2	436.6	434.4	436.6	440.0	436.6
35°	322.4	322.4	324.6	321.3	322.4	317.9	320.1	317.9	319.0	321.3	320.1
37.5°	224.0	222.8	226.2	224.0	225.1	222.8	224.0	221.7	222.8	224.0	222.8
40°	151.6	151.6	153.8	152.7	153.8	152.7	153.8	152.7	152.7	152.7	151.6
42.5°	101.8	102.9	104.1	104.1	105.2	104.1	105.2	104.1	104.1	104.1	102.9
45°	70.1	70.1	71.3	71.3	72.4	72.4	72.4	71.3	71.3	71.3	71.3
47.5°	48.6	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	48.6
50°	33.9	35.1	35.1	35.1	35.1	35.1	35.1	33.9	33.9	33.9	33.9
52.5°	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	23.8	23.8
55°	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1
57.5°	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
60°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
62.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
65°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
67.5°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
70°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
72.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
75°	2.3	2.3	2.3	2.3	2.3	1.1	1.1	1.1	1.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	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



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CATALOG NUMBER: LD6A10D010TE ERM6A10827 6LM111H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	972.8	972.8	972.8	972.8
2.5°	997.7	1006.7	1003.4	1003.4
5°	1024.8	1035.0	1032.8	1031.6
7.5°	1032.8	1041.8	1039.5	1039.5
10°	1016.9	1026.0	1023.7	1023.7
12.5°	990.9	998.8	997.7	996.6
15°	958.1	966.0	964.9	963.8
17.5°	914.0	923.0	921.9	920.8
20°	860.8	868.7	868.7	867.6
22.5°	803.1	808.8	809.9	807.7
25°	737.5	742.0	742.0	739.8
27.5°	654.9	658.3	658.3	657.2
30°	553.1	554.3	555.4	553.1
32.5°	434.4	434.4	436.6	434.4
35°	316.7	316.7	319.0	317.9
37.5°	220.6	220.6	221.7	220.6
40°	150.4	150.4	151.6	150.4
42.5°	102.9	101.8	102.9	102.9
45°	70.1	70.1	71.3	70.1
47.5°	48.6	48.6	48.6	48.6
50°	33.9	33.9	33.9	33.9
52.5°	23.8	23.8	23.8	23.8
55°	17.0	18.1	18.1	18.1
57.5°	12.4	13.6	13.6	13.6
60°	10.2	10.2	10.2	10.2
62.5°	7.9	7.9	7.9	7.9
65°	5.7	5.7	5.7	5.7
67.5°	4.5	4.5	4.5	4.5
70°	3.4	3.4	3.4	3.4
72.5°	2.3	2.3	2.3	2.3
75°	1.1	1.1	1.1	1.1
77.5°	1.1	1.1	1.1	1.1
80°	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)