

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: P135882

Luminaire Tested: **LD6A10D010TE ERM6A10835 6LM121H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135882
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23373)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A10D010TE ERM6A10835 6LM121H
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED DOUBLE WALL WASH LUMINAIRE
SEMI-SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 3500K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1163.0 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 0.96 / 1.06 / 1.01
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

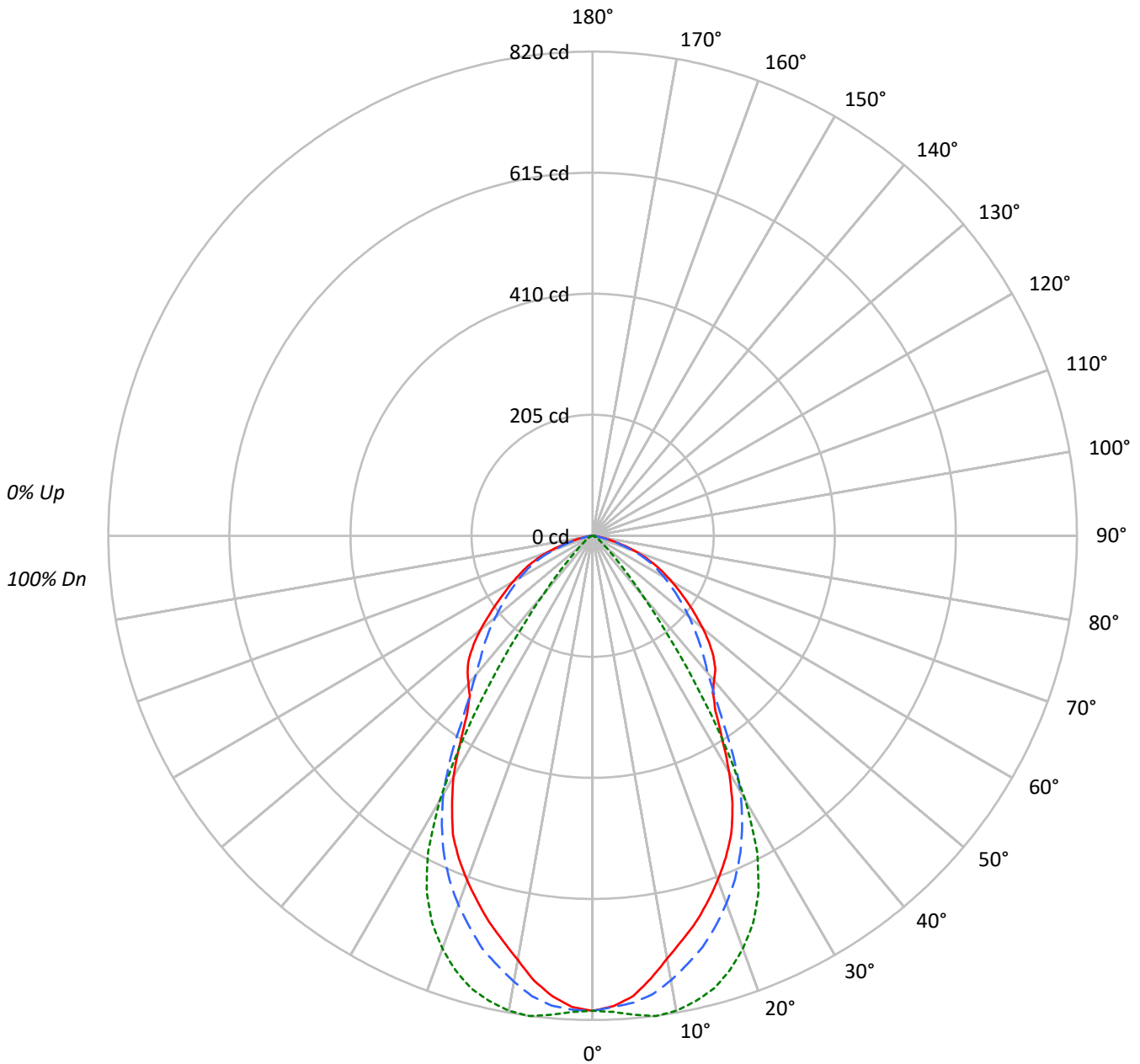
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				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			100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89			89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79			79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70			70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62			62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56			56
6	78	67	60	54	77	66	59	54	65	58	54	63	57	53	62	57	53	51			51
7	74	62	55	49	72	61	54	49	60	53	49	59	53	49	57	52	48	47			47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43			43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39			39
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36			36

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	52493	52493	52493
5°	51265	53335	51265
10°	48155	54111	48314
15°	45726	53608	45726
20°	43038	51647	43121
25°	39988	47863	40247
30°	34796	38917	35527
35°	28847	23527	29524
40°	27227	10969	27849
45°	26692	5158	27366
50°	24674	2710	25171
55°	22260	1797	22396
60°	20146	1422	20303
65°	18015	1127	18571
70°	14840	935	15298
75°	9806	605	9806
80°	5485	451	5485
85°	3668	0	2695



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.1	6.5
10°-20°	203.6	17.5
20°-30°	272.2	23.4
30°-40°	225.1	19.4
40°-50°	161.5	13.9
50°-60°	118.7	10.2
60°-70°	76.6	6.6
70°-80°	27.2	2.3
80°-90°	3.1	0.3
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°	550.8	47.4
0°-40°	775.9	66.7
0°-60°	1056.1	90.8
0°-90°	1163.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1163.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	805	805	805	805	805	
5°	783	794	814	799	783	73
15°	677	721	794	723	677	190
25°	556	592	665	596	559	252
35°	362	384	295	388	371	233
45°	289	255	56	259	297	221
55°	196	174	16	176	197	176
65°	117	108	7	109	120	115
75°	39	32	2	32	39	44
85°	5	2	0	2	4	6
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°	804.6	804.6	804.6	804.6	804.6	804.6	804.6	804.6	804.6	804.6	804.6
2.5°	797.4	791.3	796.1	791.3	792.5	797.4	798.6	801.0	802.2	798.6	798.6
5°	782.8	776.7	782.8	777.9	780.3	786.4	787.6	792.5	794.9	793.7	796.1
7.5°	756.0	751.2	757.2	753.6	757.2	765.8	769.4	775.5	780.3	782.8	786.4
10°	726.9	722.0	728.1	724.4	730.5	740.2	743.9	751.2	758.5	764.5	770.6
12.5°	701.3	696.5	700.1	698.9	705.0	713.5	719.6	728.1	736.6	742.7	751.2
15°	677.0	672.2	677.0	674.6	679.5	689.2	695.3	703.8	713.5	720.8	730.5
17.5°	649.1	644.2	647.9	646.6	651.5	660.0	666.1	674.6	684.3	692.8	702.5
20°	619.9	615.0	618.7	616.2	621.1	630.8	635.7	645.4	653.9	662.4	670.9
22.5°	589.5	584.6	589.5	585.9	593.2	599.2	604.1	613.8	621.1	629.6	636.9
25°	555.5	550.6	554.3	551.8	556.7	564.0	567.6	577.4	583.4	591.9	599.2
27.5°	512.9	506.9	514.1	509.3	515.4	521.4	525.1	533.6	540.9	548.2	554.3
30°	461.9	457.0	464.3	460.7	468.0	472.8	477.7	486.2	492.3	500.8	502.0
32.5°	408.4	406.0	412.0	409.6	416.9	421.8	425.4	433.9	438.8	443.7	440.0
35°	362.2	359.8	365.9	364.6	370.7	374.4	378.0	382.9	382.9	384.1	374.4
37.5°	334.3	333.0	337.9	336.7	341.6	345.2	345.2	346.4	344.0	337.9	323.3
40°	319.7	318.5	322.1	320.9	324.5	325.7	324.5	322.1	314.8	302.7	283.2
42.5°	307.5	305.1	307.5	306.3	308.7	309.9	306.3	302.7	292.9	278.3	255.3
45°	289.3	286.9	290.5	288.1	290.5	290.5	286.9	282.0	271.1	255.3	230.9
47.5°	267.4	265.0	268.6	266.2	268.6	268.6	265.0	260.1	249.2	233.4	209.1
50°	243.1	240.7	243.1	241.9	244.3	245.5	240.7	237.0	227.3	212.7	188.4
52.5°	218.8	216.4	218.8	218.8	220.0	220.0	216.4	213.9	205.4	192.0	170.2
55°	195.7	193.3	196.9	195.7	196.9	196.9	193.3	190.8	184.8	173.8	153.2
57.5°	173.8	172.6	175.0	173.8	173.8	173.8	171.4	170.2	165.3	155.6	138.6
60°	154.4	151.9	153.2	153.2	153.2	154.4	151.9	150.7	147.1	139.8	124.0
62.5°	134.9	133.7	134.9	133.7	133.7	134.9	133.7	132.5	130.1	124.0	110.6
65°	116.7	114.3	116.7	115.5	115.5	115.5	114.3	114.3	111.8	108.2	96.0
67.5°	97.2	96.0	97.2	96.0	94.8	94.8	93.6	93.6	92.4	89.9	79.0
70°	77.8	75.4	76.6	74.1	75.4	72.9	72.9	71.7	70.5	69.3	60.8
72.5°	57.1	55.9	55.9	53.5	53.5	52.3	51.1	51.1	49.8	49.8	43.8
75°	38.9	38.9	37.7	35.2	36.5	34.0	34.0	34.0	32.8	31.6	28.0
77.5°	25.5	24.3	24.3	23.1	23.1	20.7	21.9	20.7	20.7	19.4	17.0
80°	14.6	14.6	14.6	13.4	13.4	12.2	12.2	12.2	10.9	10.9	9.7
82.5°	8.5	8.5	8.5	7.3	7.3	7.3	7.3	6.1	6.1	6.1	4.9
85°	4.9	3.6	3.6	3.6	3.6	3.6	3.6	2.4	2.4	2.4	2.4
87.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	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°	804.6	804.6	804.6	804.6	804.6	804.6	804.6	804.6	804.6	804.6	804.6
2.5°	803.4	802.2	801.0	805.9	807.1	803.4	803.4	807.1	809.5	803.4	802.2
5°	802.2	803.4	803.4	809.5	813.2	810.7	810.7	814.4	816.8	809.5	807.1
7.5°	796.1	799.8	802.2	810.7	816.8	815.6	816.8	820.4	821.7	814.4	810.7
10°	782.8	787.6	792.5	803.4	810.7	811.9	813.2	816.8	819.2	809.5	804.6
12.5°	764.5	771.8	779.1	791.3	799.8	801.0	804.6	807.1	808.3	799.8	793.7
15°	743.9	753.6	760.9	774.3	784.0	786.4	790.1	793.7	793.7	784.0	777.9
17.5°	718.3	726.9	736.6	750.0	760.9	763.3	768.2	771.8	771.8	762.1	753.6
20°	686.7	696.5	705.0	719.6	731.7	735.4	740.2	743.9	743.9	735.4	724.4
22.5°	653.9	663.7	672.2	685.5	697.7	701.3	705.0	709.8	708.6	701.3	691.6
25°	615.0	623.5	629.6	643.0	652.7	656.4	661.2	664.9	663.7	656.4	647.9
27.5°	567.6	573.7	574.9	583.4	591.9	595.6	599.2	602.9	601.7	595.6	588.3
30°	512.9	511.7	505.6	505.6	509.3	511.7	514.1	516.6	515.4	511.7	506.9
32.5°	443.7	435.1	419.3	410.8	407.2	407.2	407.2	409.6	408.4	407.2	407.2
35°	369.5	351.3	327.0	308.7	299.0	295.4	292.9	295.4	294.1	295.4	300.2
37.5°	308.7	282.0	249.2	224.9	209.1	201.8	196.9	198.1	198.1	201.8	210.3
40°	263.8	229.7	193.3	162.9	144.6	134.9	128.8	128.8	130.1	134.9	145.9
42.5°	229.7	192.0	151.9	122.8	100.9	91.2	85.1	83.9	85.1	91.2	102.1
45°	203.0	162.9	122.8	91.2	72.9	62.0	57.1	55.9	57.1	63.2	72.9
47.5°	179.9	139.8	102.1	70.5	52.3	43.8	38.9	37.7	40.1	45.0	53.5
50°	160.4	121.5	83.9	55.9	40.1	31.6	28.0	26.7	28.0	32.8	40.1
52.5°	142.2	105.7	70.5	43.8	30.4	24.3	20.7	19.4	20.7	24.3	31.6
55°	127.6	93.6	60.8	36.5	24.3	19.4	17.0	15.8	17.0	19.4	25.5
57.5°	114.3	82.7	52.3	30.4	20.7	15.8	13.4	13.4	13.4	15.8	20.7
60°	102.1	72.9	45.0	25.5	17.0	13.4	10.9	10.9	10.9	13.4	17.0
62.5°	91.2	64.4	38.9	21.9	14.6	10.9	9.7	9.7	9.7	10.9	14.6
65°	77.8	54.7	32.8	18.2	12.2	9.7	8.5	7.3	8.5	9.7	12.2
67.5°	64.4	45.0	26.7	14.6	9.7	7.3	6.1	6.1	6.1	7.3	9.7
70°	49.8	35.2	20.7	10.9	7.3	6.1	4.9	4.9	4.9	6.1	7.3
72.5°	34.0	24.3	14.6	8.5	6.1	4.9	3.6	3.6	3.6	4.9	6.1
75°	21.9	15.8	9.7	6.1	3.6	3.6	2.4	2.4	2.4	3.6	3.6
77.5°	13.4	9.7	6.1	3.6	2.4	2.4	2.4	2.4	2.4	2.4	2.4
80°	7.3	6.1	3.6	2.4	2.4	1.2	1.2	1.2	1.2	1.2	1.2
82.5°	3.6	3.6	2.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
85°	1.2	1.2	1.2	1.2	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°	804.6	804.6	804.6	804.6	804.6	804.6	804.6	804.6	804.6	804.6	804.6
2.5°	802.2	804.6	805.9	801.0	802.2	803.4	796.1	797.4	793.7	801.0	797.4
5°	805.9	807.1	808.3	801.0	799.8	798.6	790.1	788.8	784.0	790.1	786.4
7.5°	807.1	804.6	804.6	793.7	790.1	786.4	775.5	771.8	765.8	768.2	763.3
10°	801.0	796.1	792.5	779.1	773.0	767.0	753.6	748.7	740.2	741.4	735.4
12.5°	787.6	781.6	775.5	760.9	753.6	745.1	731.7	724.4	715.9	715.9	708.6
15°	770.6	763.3	756.0	741.4	731.7	723.2	707.4	700.1	691.6	690.4	684.3
17.5°	746.3	737.8	730.5	713.5	703.8	694.0	679.5	670.9	662.4	662.4	655.1
20°	717.1	707.4	698.9	683.1	673.4	664.9	647.9	640.6	633.3	632.1	626.0
22.5°	683.1	673.4	666.1	651.5	640.6	632.1	617.5	611.4	604.1	602.9	595.6
25°	640.6	632.1	624.8	612.6	602.9	595.6	582.2	574.9	570.1	570.1	564.0
27.5°	583.4	576.1	574.9	565.2	557.9	553.0	542.1	537.2	531.2	531.2	523.9
30°	506.9	508.1	512.9	510.5	508.1	505.6	495.9	494.7	487.4	486.2	477.7
32.5°	413.3	421.8	435.1	442.4	446.1	448.5	446.1	443.7	437.6	436.4	426.6
35°	313.6	330.6	352.5	367.1	379.2	387.7	391.4	391.4	389.0	387.7	379.2
37.5°	227.3	252.8	282.0	306.3	325.7	341.6	348.8	353.7	353.7	353.7	350.1
40°	166.5	196.9	230.9	262.5	286.9	307.5	318.5	327.0	329.4	333.0	330.6
42.5°	124.0	156.8	193.3	229.7	257.7	280.8	295.4	305.1	311.2	314.8	314.8
45°	94.8	127.6	165.3	204.2	233.4	258.9	273.5	284.4	290.5	295.4	295.4
47.5°	72.9	104.5	142.2	181.1	211.5	237.0	251.6	261.3	267.4	272.3	272.3
50°	57.1	86.3	122.8	160.4	190.8	215.1	228.5	238.2	243.1	246.7	248.0
52.5°	46.2	72.9	108.2	144.6	172.6	194.5	205.4	213.9	218.8	221.2	222.4
55°	37.7	63.2	96.0	128.8	155.6	176.2	186.0	192.0	195.7	198.1	198.1
57.5°	31.6	54.7	85.1	116.7	142.2	158.0	166.5	171.4	173.8	176.2	176.2
60°	26.7	47.4	75.4	104.5	127.6	142.2	148.3	151.9	154.4	155.6	155.6
62.5°	23.1	40.1	65.6	92.4	113.0	126.4	131.3	133.7	134.9	134.9	136.1
65°	19.4	34.0	55.9	80.2	97.2	109.4	113.0	114.3	114.3	115.5	116.7
67.5°	14.6	26.7	45.0	65.6	80.2	89.9	93.6	93.6	93.6	93.6	94.8
70°	12.2	20.7	34.0	49.8	62.0	69.3	71.7	71.7	71.7	71.7	72.9
72.5°	8.5	14.6	24.3	35.2	45.0	49.8	49.8	51.1	49.8	49.8	52.3
75°	6.1	9.7	15.8	23.1	28.0	31.6	32.8	32.8	32.8	32.8	34.0
77.5°	3.6	6.1	9.7	13.4	18.2	19.4	20.7	20.7	20.7	20.7	21.9
80°	2.4	3.6	6.1	8.5	9.7	10.9	12.2	12.2	12.2	12.2	12.2
82.5°	1.2	2.4	3.6	3.6	4.9	6.1	6.1	6.1	6.1	6.1	7.3
85°	0.0	1.2	1.2	2.4	2.4	2.4	2.4	2.4	2.4	2.4	3.6
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 ERM6A10835 6LM121H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	804.6	804.6	804.6	804.6
2.5°	790.1	798.6	792.5	798.6
5°	777.9	785.2	777.9	782.8
7.5°	753.6	759.7	752.4	759.7
10°	724.4	730.5	723.2	729.3
12.5°	697.7	702.5	695.3	702.5
15°	673.4	678.2	670.9	677.0
17.5°	645.4	649.1	643.0	649.1
20°	616.2	619.9	615.0	621.1
22.5°	587.1	591.9	585.9	591.9
25°	554.3	557.9	551.8	559.1
27.5°	515.4	517.8	511.7	515.4
30°	468.0	469.2	464.3	471.6
32.5°	418.1	418.1	410.8	418.1
35°	371.9	370.7	365.9	370.7
37.5°	342.8	342.8	339.1	341.6
40°	325.7	327.0	322.1	327.0
42.5°	311.2	313.6	309.9	313.6
45°	292.9	295.4	291.7	296.6
47.5°	269.8	272.3	269.8	273.5
50°	244.3	246.7	244.3	248.0
52.5°	218.8	221.2	218.8	221.2
55°	195.7	196.9	194.5	196.9
57.5°	173.8	175.0	172.6	175.0
60°	153.2	155.6	153.2	155.6
62.5°	134.9	136.1	136.1	137.3
65°	115.5	120.3	119.1	120.3
67.5°	96.0	99.7	99.7	100.9
70°	74.1	76.6	79.0	80.2
72.5°	52.3	55.9	57.1	58.3
75°	34.0	37.7	37.7	38.9
77.5°	21.9	24.3	24.3	24.3
80°	13.4	14.6	13.4	14.6
82.5°	7.3	7.3	7.3	8.5
85°	3.6	3.6	3.6	3.6
87.5°	1.2	1.2	1.2	1.2
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)