

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: P135887

Luminaire Tested: **LD6A10D010TE ERM6A10940 6LM121H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135887
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 ERM6A10940 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 4000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1089.7 lumens
Efficiency: N/A
Efficacy: 77.8 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

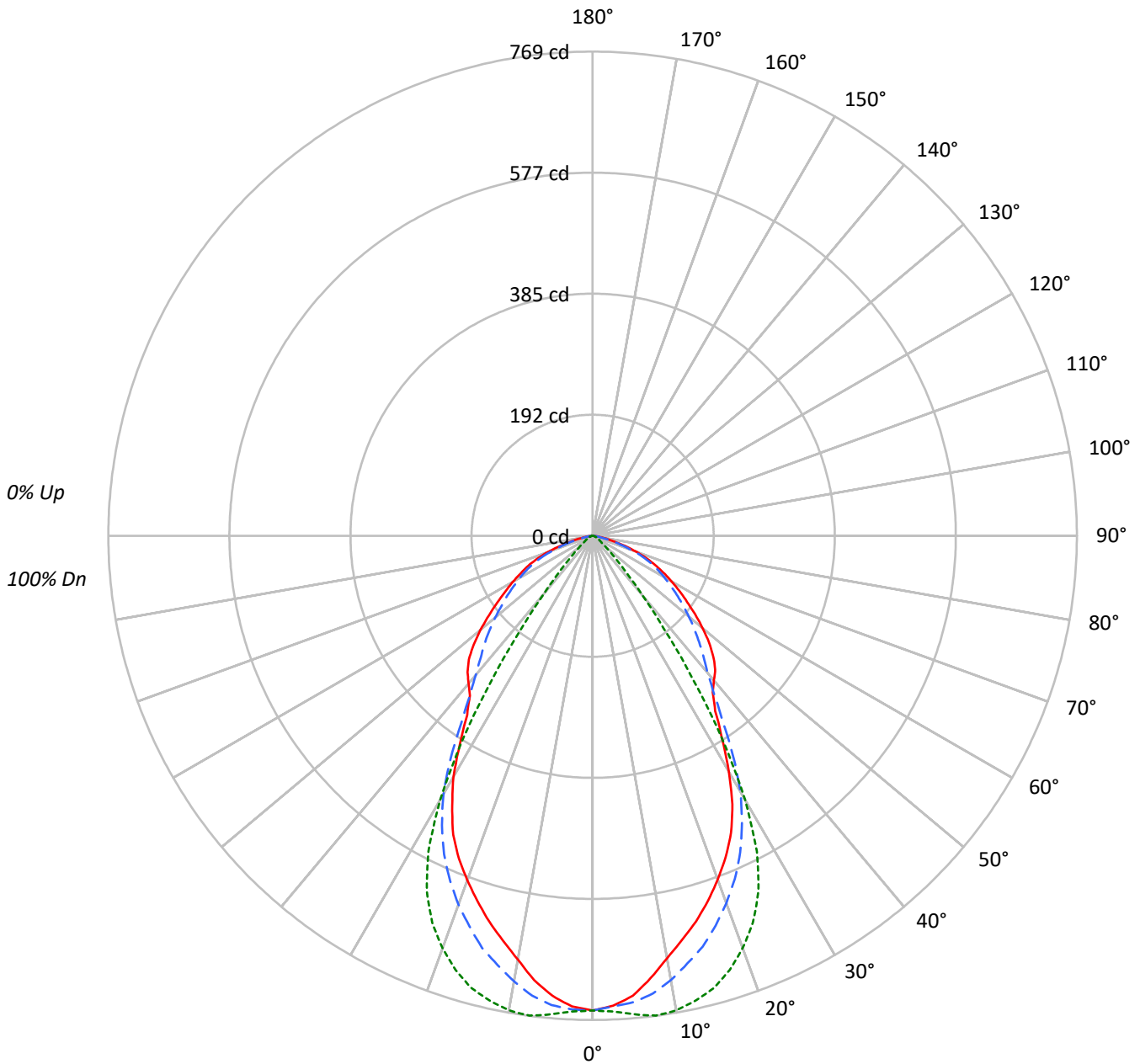
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				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	104	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°	49191	49191	49191
5°	48030	49969	48030
10°	45121	50699	45267
15°	42842	50231	42842
20°	40324	48384	40400
25°	37461	44847	37713
30°	32597	36461	33282
35°	27031	22045	27668
40°	25507	10279	26086
45°	25013	4835	25640
50°	23121	2548	23578
55°	20849	1683	20986
60°	18881	1344	19024
65°	16873	1050	17398
70°	13906	877	14344
75°	9175	580	9175
80°	5147	413	5147
85°	3443	0	2545



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.3	6.5
10°-20°	190.8	17.5
20°-30°	255.0	23.4
30°-40°	210.9	19.4
40°-50°	151.3	13.9
50°-60°	111.2	10.2
60°-70°	71.8	6.6
70°-80°	25.5	2.3
80°-90°	2.9	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°	516.1	47.4
0°-40°	727.0	66.7
0°-60°	989.5	90.8
0°-90°	1089.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1089.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	754	754	754	754	754	
5°	733	744	763	748	733	68
15°	634	675	744	678	634	178
25°	520	555	623	558	524	236
35°	339	360	277	363	347	218
45°	271	239	52	242	278	207
55°	183	163	15	165	184	165
65°	109	101	7	102	113	108
75°	36	30	2	30	36	41
85°	5	2	0	2	3	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°	754.0	754.0	754.0	754.0	754.0	754.0	754.0	754.0	754.0	754.0	754.0
2.5°	747.1	741.4	746.0	741.4	742.5	747.1	748.3	750.5	751.7	748.3	748.3
5°	733.4	727.7	733.4	728.9	731.1	736.8	738.0	742.5	744.8	743.7	746.0
7.5°	708.3	703.8	709.5	706.0	709.5	717.5	720.9	726.6	731.1	733.4	736.8
10°	681.1	676.5	682.2	678.8	684.5	693.5	696.9	703.8	710.6	716.3	722.0
12.5°	657.1	652.5	656.0	654.8	660.5	668.5	674.2	682.2	690.2	695.8	703.8
15°	634.3	629.7	634.3	632.0	636.6	645.7	651.4	659.4	668.5	675.4	684.5
17.5°	608.2	603.6	607.0	605.9	610.4	618.4	624.1	632.0	641.1	649.1	658.2
20°	580.8	576.2	579.6	577.4	581.9	591.1	595.6	604.7	612.7	620.7	628.6
22.5°	552.4	547.8	552.4	549.0	555.8	561.4	566.0	575.1	581.9	589.9	596.8
25°	520.4	515.9	519.3	517.0	521.6	528.4	531.8	541.0	546.7	554.7	561.4
27.5°	480.6	474.9	481.8	477.2	482.9	488.6	492.0	499.9	506.8	513.6	519.3
30°	432.7	428.2	435.0	431.6	438.4	443.0	447.5	455.5	461.2	469.2	470.4
32.5°	382.6	380.3	386.1	383.8	390.6	395.2	398.6	406.6	411.1	415.7	412.3
35°	339.4	337.1	342.8	341.7	347.4	350.8	354.2	358.8	358.8	359.9	350.8
37.5°	313.2	312.0	316.6	315.4	320.0	323.4	323.4	324.6	322.3	316.6	302.9
40°	299.5	298.4	301.7	300.6	304.0	305.2	304.0	301.7	295.0	283.6	265.4
42.5°	288.2	285.9	288.2	287.0	289.3	290.4	287.0	283.6	274.5	260.8	239.1
45°	271.1	268.8	272.2	269.9	272.2	272.2	268.8	264.2	253.9	239.1	216.4
47.5°	250.5	248.2	251.7	249.4	251.7	251.7	248.2	243.7	233.4	218.7	195.9
50°	227.8	225.5	227.8	226.7	228.9	230.1	225.5	222.1	213.0	199.3	176.5
52.5°	205.0	202.7	205.0	205.0	206.1	206.1	202.7	200.4	192.5	179.9	159.5
55°	183.3	181.0	184.5	183.3	184.5	184.5	181.0	178.8	173.1	162.9	143.5
57.5°	162.9	161.8	164.0	162.9	162.9	162.9	160.6	159.5	154.9	145.8	129.8
60°	144.7	142.4	143.5	143.5	143.5	144.7	142.4	141.2	137.8	131.0	116.1
62.5°	126.4	125.3	126.4	125.3	125.3	126.4	125.3	124.1	121.8	116.1	103.6
65°	109.3	107.0	109.3	108.2	108.2	108.2	107.0	107.0	104.7	101.3	90.0
67.5°	91.1	90.0	91.1	90.0	88.9	88.9	87.7	87.7	86.6	84.3	74.0
70°	72.9	70.6	71.8	69.5	70.6	68.3	68.3	67.2	66.1	64.9	56.9
72.5°	53.5	52.4	52.4	50.1	50.1	48.9	47.8	47.8	46.7	46.7	41.0
75°	36.4	36.4	35.3	33.0	34.1	31.9	31.9	31.9	30.8	29.7	26.2
77.5°	24.0	22.8	22.8	21.7	21.7	19.4	20.5	19.4	19.4	18.2	16.0
80°	13.7	13.7	13.7	12.5	12.5	11.4	11.4	11.4	10.3	10.3	9.1
82.5°	8.0	8.0	8.0	6.8	6.8	6.8	6.8	5.7	5.7	5.7	4.6
85°	4.6	3.4	3.4	3.4	3.4	3.4	3.4	2.3	2.3	2.3	2.3
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	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°	754.0	754.0	754.0	754.0	754.0	754.0	754.0	754.0	754.0	754.0	754.0
2.5°	752.8	751.7	750.5	755.1	756.2	752.8	752.8	756.2	758.5	752.8	751.7
5°	751.7	752.8	752.8	758.5	761.8	759.6	759.6	763.0	765.3	758.5	756.2
7.5°	746.0	749.4	751.7	759.6	765.3	764.1	765.3	768.7	769.8	763.0	759.6
10°	733.4	738.0	742.5	752.8	759.6	760.7	761.8	765.3	767.5	758.5	754.0
12.5°	716.3	723.2	730.0	741.4	749.4	750.5	754.0	756.2	757.4	749.4	743.7
15°	696.9	706.0	712.9	725.4	734.6	736.8	740.3	743.7	743.7	734.6	728.9
17.5°	673.1	681.1	690.2	702.6	712.9	715.2	719.7	723.2	723.2	714.0	706.0
20°	643.4	652.5	660.5	674.2	685.6	689.0	693.5	696.9	696.9	689.0	678.8
22.5°	612.7	621.8	629.7	642.3	653.7	657.1	660.5	665.1	663.9	657.1	648.0
25°	576.2	584.2	589.9	602.5	611.6	615.0	619.6	623.0	621.8	615.0	607.0
27.5°	531.8	537.5	538.7	546.7	554.7	558.1	561.4	564.8	563.7	558.1	551.2
30°	480.6	479.5	473.8	473.8	477.2	479.5	481.8	484.0	482.9	479.5	474.9
32.5°	415.7	407.7	392.9	384.9	381.5	381.5	381.5	383.8	382.6	381.5	381.5
35°	346.2	329.1	306.3	289.3	280.2	276.8	274.5	276.8	275.6	276.8	281.3
37.5°	289.3	264.2	233.4	210.7	195.9	189.0	184.5	185.6	185.6	189.0	197.0
40°	247.1	215.3	181.0	152.6	135.5	126.4	120.7	120.7	121.8	126.4	136.7
42.5°	215.3	179.9	142.4	115.0	94.6	85.4	79.7	78.6	79.7	85.4	95.7
45°	190.2	152.6	115.0	85.4	68.3	58.1	53.5	52.4	53.5	59.2	68.3
47.5°	168.5	131.0	95.7	66.1	48.9	41.0	36.4	35.3	37.5	42.1	50.1
50°	150.4	113.9	78.6	52.4	37.5	29.7	26.2	25.1	26.2	30.8	37.5
52.5°	133.2	99.1	66.1	41.0	28.5	22.8	19.4	18.2	19.4	22.8	29.7
55°	119.6	87.7	56.9	34.1	22.8	18.2	16.0	14.8	16.0	18.2	24.0
57.5°	107.0	77.5	48.9	28.5	19.4	14.8	12.5	12.5	12.5	14.8	19.4
60°	95.7	68.3	42.1	24.0	16.0	12.5	10.3	10.3	10.3	12.5	16.0
62.5°	85.4	60.3	36.4	20.5	13.7	10.3	9.1	9.1	9.1	10.3	13.7
65°	72.9	51.2	30.8	17.1	11.4	9.1	8.0	6.8	8.0	9.1	11.4
67.5°	60.3	42.1	25.1	13.7	9.1	6.8	5.7	5.7	5.7	6.8	9.1
70°	46.7	33.0	19.4	10.3	6.8	5.7	4.6	4.6	4.6	5.7	6.8
72.5°	31.9	22.8	13.7	8.0	5.7	4.6	3.4	3.4	3.4	4.6	5.7
75°	20.5	14.8	9.1	5.7	3.4	3.4	2.3	2.3	2.3	3.4	3.4
77.5°	12.5	9.1	5.7	3.4	2.3	2.3	2.3	2.3	2.3	2.3	2.3
80°	6.8	5.7	3.4	2.3	2.3	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	3.4	3.4	2.3	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
85°	1.1	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°	754.0	754.0	754.0	754.0	754.0	754.0	754.0	754.0	754.0	754.0	754.0
2.5°	751.7	754.0	755.1	750.5	751.7	752.8	746.0	747.1	743.7	750.5	747.1
5°	755.1	756.2	757.4	750.5	749.4	748.3	740.3	739.1	734.6	740.3	736.8
7.5°	756.2	754.0	754.0	743.7	740.3	736.8	726.6	723.2	717.5	719.7	715.2
10°	750.5	746.0	742.5	730.0	724.3	718.6	706.0	701.5	693.5	694.7	689.0
12.5°	738.0	732.3	726.6	712.9	706.0	698.1	685.6	678.8	670.8	670.8	663.9
15°	722.0	715.2	708.3	694.7	685.6	677.6	662.8	656.0	648.0	646.8	641.1
17.5°	699.2	691.3	684.5	668.5	659.4	650.3	636.6	628.6	620.7	620.7	613.9
20°	671.9	662.8	654.8	640.0	630.9	623.0	607.0	600.2	593.3	592.2	586.5
22.5°	640.0	630.9	624.1	610.4	600.2	592.2	578.5	572.8	566.0	564.8	558.1
25°	600.2	592.2	585.3	573.9	564.8	558.1	545.5	538.7	534.1	534.1	528.4
27.5°	546.7	539.8	538.7	529.6	522.7	518.2	507.9	503.3	497.6	497.6	490.9
30°	474.9	476.1	480.6	478.3	476.1	473.8	464.7	463.5	456.7	455.5	447.5
32.5°	387.2	395.2	407.7	414.6	418.0	420.3	418.0	415.7	410.0	408.9	399.7
35°	293.9	309.7	330.3	344.0	355.4	363.3	366.7	366.7	364.4	363.3	355.4
37.5°	213.0	236.8	264.2	287.0	305.2	320.0	326.8	331.4	331.4	331.4	328.0
40°	156.1	184.5	216.4	246.0	268.8	288.2	298.4	306.3	308.6	312.0	309.7
42.5°	116.1	146.9	181.0	215.3	241.4	263.1	276.8	285.9	291.6	295.0	295.0
45°	88.9	119.6	154.9	191.3	218.7	242.5	256.2	266.5	272.2	276.8	276.8
47.5°	68.3	98.0	133.2	169.6	198.2	222.1	235.7	244.8	250.5	255.1	255.1
50°	53.5	80.9	115.0	150.4	178.8	201.6	214.1	223.3	227.8	231.2	232.3
52.5°	43.2	68.3	101.3	135.5	161.8	182.2	192.5	200.4	205.0	207.3	208.4
55°	35.3	59.2	90.0	120.7	145.8	165.1	174.2	179.9	183.3	185.6	185.6
57.5°	29.7	51.2	79.7	109.3	133.2	148.1	156.1	160.6	162.9	165.1	165.1
60°	25.1	44.4	70.6	98.0	119.6	133.2	138.9	142.4	144.7	145.8	145.8
62.5°	21.7	37.5	61.5	86.6	105.9	118.4	123.0	125.3	126.4	126.4	127.5
65°	18.2	31.9	52.4	75.2	91.1	102.5	105.9	107.0	107.0	108.2	109.3
67.5°	13.7	25.1	42.1	61.5	75.2	84.3	87.7	87.7	87.7	87.7	88.9
70°	11.4	19.4	31.9	46.7	58.1	64.9	67.2	67.2	67.2	67.2	68.3
72.5°	8.0	13.7	22.8	33.0	42.1	46.7	46.7	47.8	46.7	46.7	48.9
75°	5.7	9.1	14.8	21.7	26.2	29.7	30.8	30.8	30.8	30.8	31.9
77.5°	3.4	5.7	9.1	12.5	17.1	18.2	19.4	19.4	19.4	19.4	20.5
80°	2.3	3.4	5.7	8.0	9.1	10.3	11.4	11.4	11.4	11.4	11.4
82.5°	1.1	2.3	3.4	3.4	4.6	5.7	5.7	5.7	5.7	5.7	6.8
85°	0.0	1.1	1.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.4
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 ERM6A10940 6LM121H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	754.0	754.0	754.0	754.0
2.5°	740.3	748.3	742.5	748.3
5°	728.9	735.7	728.9	733.4
7.5°	706.0	711.8	704.9	711.8
10°	678.8	684.5	677.6	683.3
12.5°	653.7	658.2	651.4	658.2
15°	630.9	635.4	628.6	634.3
17.5°	604.7	608.2	602.5	608.2
20°	577.4	580.8	576.2	581.9
22.5°	550.1	554.7	549.0	554.7
25°	519.3	522.7	517.0	523.9
27.5°	482.9	485.2	479.5	482.9
30°	438.4	439.6	435.0	441.8
32.5°	391.8	391.8	384.9	391.8
35°	348.5	347.4	342.8	347.4
37.5°	321.1	321.1	317.7	320.0
40°	305.2	306.3	301.7	306.3
42.5°	291.6	293.9	290.4	293.9
45°	274.5	276.8	273.3	277.9
47.5°	252.8	255.1	252.8	256.2
50°	228.9	231.2	228.9	232.3
52.5°	205.0	207.3	205.0	207.3
55°	183.3	184.5	182.2	184.5
57.5°	162.9	164.0	161.8	164.0
60°	143.5	145.8	143.5	145.8
62.5°	126.4	127.5	127.5	128.7
65°	108.2	112.7	111.6	112.7
67.5°	90.0	93.4	93.4	94.6
70°	69.5	71.8	74.0	75.2
72.5°	48.9	52.4	53.5	54.6
75°	31.9	35.3	35.3	36.4
77.5°	20.5	22.8	22.8	22.8
80°	12.5	13.7	12.5	13.7
82.5°	6.8	6.8	6.8	8.0
85°	3.4	3.4	3.4	3.4
87.5°	1.1	1.1	1.1	1.1
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)