

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: P135884

Luminaire Tested: **LD6A10D010TE ERM6A10927 6LM121H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135884
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 ERM6A10927 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 2700K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 994.2 lumens
Efficiency: N/A
Efficacy: 71.0 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

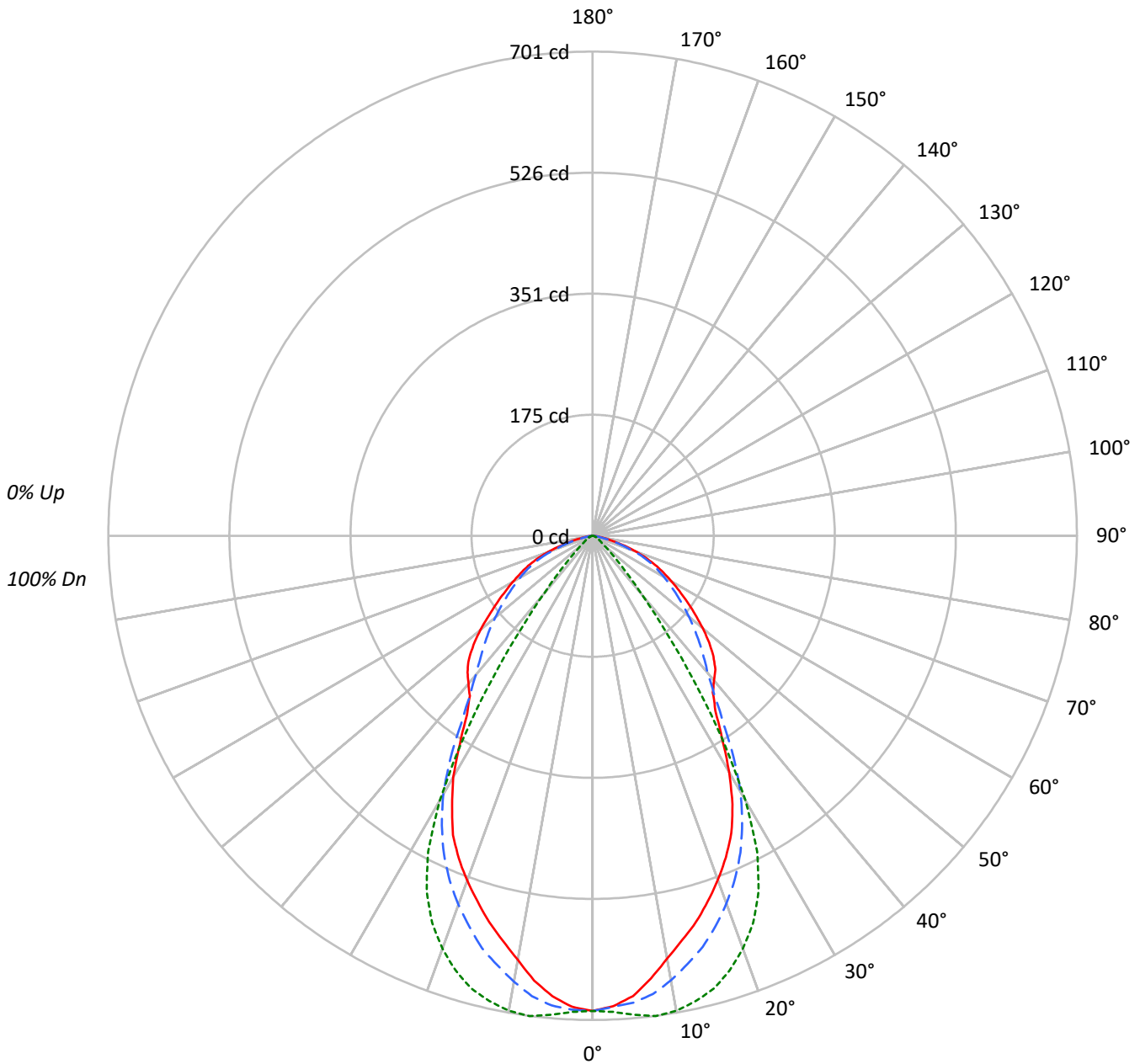
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	44879	44879	44879
5°	43819	45594	43819
10°	41166	46254	41298
15°	39093	45827	39093
20°	36797	44149	36866
25°	34186	40909	34409
30°	29742	33267	30374
35°	24658	20102	25239
40°	23276	9385	23804
45°	22817	4410	23398
50°	21091	2324	21517
55°	19029	1536	19154
60°	17210	1227	17354
65°	15406	957	15885
70°	12685	782	13086
75°	8369	529	8369
80°	4696	376	4696
85°	3069	0	2321



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.2	6.5
10°-20°	174.1	17.5
20°-30°	232.7	23.4
30°-40°	192.4	19.4
40°-50°	138.0	13.9
50°-60°	101.5	10.2
60°-70°	65.5	6.6
70°-80°	23.2	2.3
80°-90°	2.7	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°	470.9	47.4
0°-40°	663.3	66.7
0°-60°	902.8	90.8
0°-90°	994.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	994.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	688	688	688	688	688	
5°	669	678	696	683	669	62
15°	579	616	678	618	579	162
25°	475	506	568	509	478	216
35°	310	328	252	332	317	199
45°	247	218	48	221	254	189
55°	167	149	14	151	168	150
65°	100	92	6	94	103	98
75°	33	27	2	27	33	38
85°	4	2	0	2	3	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°	687.9	687.9	687.9	687.9	687.9	687.9	687.9	687.9	687.9	687.9	687.9
2.5°	681.6	676.4	680.6	676.4	677.5	681.6	682.6	684.7	685.7	682.6	682.6
5°	669.1	664.0	669.1	665.0	667.1	672.3	673.4	677.5	679.5	678.5	680.6
7.5°	646.3	642.1	647.4	644.3	647.4	654.6	657.7	662.9	667.1	669.1	672.3
10°	621.4	617.2	622.4	619.3	624.5	632.8	635.9	642.1	648.4	653.5	658.8
12.5°	599.5	595.4	598.5	597.4	602.7	609.9	615.2	622.4	629.7	634.9	642.1
15°	578.8	574.6	578.8	576.7	580.8	589.2	594.3	601.7	609.9	616.2	624.5
17.5°	554.8	550.7	553.8	552.8	557.0	564.2	569.4	576.7	584.9	592.3	600.6
20°	530.0	525.7	528.9	526.8	531.0	539.2	543.5	551.7	559.0	566.3	573.6
22.5°	504.0	499.8	504.0	500.9	507.1	512.2	516.4	524.7	531.0	538.2	544.5
25°	474.9	470.7	473.8	471.8	475.9	482.1	485.3	493.5	498.7	506.0	512.2
27.5°	438.4	433.3	439.5	435.4	440.5	445.8	448.9	456.2	462.4	468.6	473.8
30°	394.8	390.7	396.9	393.8	400.1	404.2	408.3	415.6	420.8	428.1	429.2
32.5°	349.1	347.0	352.2	350.1	356.4	360.6	363.7	371.0	375.1	379.2	376.1
35°	309.6	307.5	312.8	311.8	316.9	320.0	323.1	327.3	327.3	328.4	320.0
37.5°	285.8	284.7	288.9	287.8	292.0	295.1	295.1	296.1	294.0	288.9	276.4
40°	273.3	272.3	275.3	274.3	277.4	278.4	277.4	275.3	269.2	258.7	242.1
42.5°	262.9	260.8	262.9	261.8	263.9	264.9	261.8	258.7	250.4	237.9	218.2
45°	247.3	245.2	248.3	246.3	248.3	248.3	245.2	241.1	231.7	218.2	197.5
47.5°	228.6	226.5	229.6	227.6	229.6	229.6	226.5	222.3	213.0	199.5	178.7
50°	207.8	205.7	207.8	206.7	208.8	209.9	205.7	202.6	194.3	181.9	161.0
52.5°	187.0	185.0	187.0	187.0	188.1	188.1	185.0	182.9	175.6	164.1	145.5
55°	167.3	165.2	168.4	167.3	168.4	168.4	165.2	163.1	157.9	148.6	130.9
57.5°	148.6	147.5	149.6	148.6	148.6	148.6	146.5	145.5	141.3	133.0	118.4
60°	131.9	129.9	130.9	130.9	130.9	131.9	129.9	128.9	125.8	119.5	106.0
62.5°	115.3	114.3	115.3	114.3	114.3	115.3	114.3	113.3	111.2	106.0	94.6
65°	99.8	97.7	99.8	98.7	98.7	98.7	97.7	97.7	95.6	92.4	82.1
67.5°	83.1	82.1	83.1	82.1	81.1	81.1	80.0	80.0	78.9	76.9	67.6
70°	66.5	64.4	65.5	63.3	64.4	62.3	62.3	61.3	60.2	59.2	52.0
72.5°	48.8	47.8	47.8	45.7	45.7	44.7	43.6	43.6	42.6	42.6	37.4
75°	33.2	33.2	32.2	30.1	31.2	29.1	29.1	29.1	28.1	27.0	23.9
77.5°	21.8	20.7	20.7	19.7	19.7	17.6	18.7	17.6	17.6	16.6	14.5
80°	12.5	12.5	12.5	11.5	11.5	10.4	10.4	10.4	9.4	9.4	8.4
82.5°	7.3	7.3	7.3	6.2	6.2	6.2	6.2	5.2	5.2	5.2	4.1
85°	4.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1	2.1	2.1
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	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°	687.9	687.9	687.9	687.9	687.9	687.9	687.9	687.9	687.9	687.9	687.9
2.5°	686.8	685.7	684.7	688.9	690.0	686.8	686.8	690.0	692.0	686.8	685.7
5°	685.7	686.8	686.8	692.0	695.1	693.1	693.1	696.2	698.2	692.0	690.0
7.5°	680.6	683.7	685.7	693.1	698.2	697.2	698.2	701.4	702.4	696.2	693.1
10°	669.1	673.4	677.5	686.8	693.1	694.1	695.1	698.2	700.3	692.0	687.9
12.5°	653.5	659.8	666.0	676.4	683.7	684.7	687.9	690.0	691.0	683.7	678.5
15°	635.9	644.3	650.5	661.9	670.2	672.3	675.4	678.5	678.5	670.2	665.0
17.5°	614.1	621.4	629.7	641.1	650.5	652.5	656.6	659.8	659.8	651.5	644.3
20°	587.1	595.4	602.7	615.2	625.5	628.6	632.8	635.9	635.9	628.6	619.3
22.5°	559.0	567.3	574.6	586.1	596.4	599.5	602.7	606.8	605.8	599.5	591.2
25°	525.7	533.0	538.2	549.7	558.0	561.1	565.2	568.3	567.3	561.1	553.8
27.5°	485.3	490.4	491.5	498.7	506.0	509.1	512.2	515.4	514.4	509.1	502.9
30°	438.4	437.4	432.3	432.3	435.4	437.4	439.5	441.6	440.5	437.4	433.3
32.5°	379.2	372.0	358.5	351.2	348.1	348.1	348.1	350.1	349.1	348.1	348.1
35°	315.9	300.3	279.5	263.9	255.6	252.4	250.4	252.4	251.4	252.4	256.7
37.5°	263.9	241.1	213.0	192.2	178.7	172.5	168.4	169.4	169.4	172.5	179.7
40°	225.5	196.4	165.2	139.3	123.7	115.3	110.2	110.2	111.2	115.3	124.7
42.5°	196.4	164.1	129.9	104.9	86.2	77.9	72.7	71.7	72.7	77.9	87.3
45°	173.5	139.3	104.9	77.9	62.3	53.0	48.8	47.8	48.8	54.1	62.3
47.5°	153.8	119.5	87.3	60.2	44.7	37.4	33.2	32.2	34.3	38.5	45.7
50°	137.1	103.9	71.7	47.8	34.3	27.0	23.9	22.9	23.9	28.1	34.3
52.5°	121.5	90.4	60.2	37.4	26.0	20.7	17.6	16.6	17.6	20.7	27.0
55°	109.1	80.0	52.0	31.2	20.7	16.6	14.5	13.5	14.5	16.6	21.8
57.5°	97.7	70.7	44.7	26.0	17.6	13.5	11.5	11.5	11.5	13.5	17.6
60°	87.3	62.3	38.5	21.8	14.5	11.5	9.4	9.4	9.4	11.5	14.5
62.5°	77.9	55.1	33.2	18.7	12.5	9.4	8.4	8.4	8.4	9.4	12.5
65°	66.5	46.7	28.1	15.6	10.4	8.4	7.3	6.2	7.3	8.4	10.4
67.5°	55.1	38.5	22.9	12.5	8.4	6.2	5.2	5.2	5.2	6.2	8.4
70°	42.6	30.1	17.6	9.4	6.2	5.2	4.1	4.1	4.1	5.2	6.2
72.5°	29.1	20.7	12.5	7.3	5.2	4.1	3.1	3.1	3.1	4.1	5.2
75°	18.7	13.5	8.4	5.2	3.1	3.1	2.1	2.1	2.1	3.1	3.1
77.5°	11.5	8.4	5.2	3.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
80°	6.2	5.2	3.1	2.1	2.1	1.0	1.0	1.0	1.0	1.0	1.0
82.5°	3.1	3.1	2.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	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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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	687.9	687.9	687.9	687.9	687.9	687.9	687.9	687.9	687.9	687.9	687.9
2.5°	685.7	687.9	688.9	684.7	685.7	686.8	680.6	681.6	678.5	684.7	681.6
5°	688.9	690.0	691.0	684.7	683.7	682.6	675.4	674.4	670.2	675.4	672.3
7.5°	690.0	687.9	687.9	678.5	675.4	672.3	662.9	659.8	654.6	656.6	652.5
10°	684.7	680.6	677.5	666.0	660.9	655.6	644.3	640.0	632.8	633.8	628.6
12.5°	673.4	668.1	662.9	650.5	644.3	636.9	625.5	619.3	612.0	612.0	605.8
15°	658.8	652.5	646.3	633.8	625.5	618.3	604.7	598.5	591.2	590.2	584.9
17.5°	638.0	630.7	624.5	609.9	601.7	593.3	580.8	573.6	566.3	566.3	560.1
20°	613.0	604.7	597.4	583.9	575.7	568.3	553.8	547.6	541.3	540.3	535.1
22.5°	583.9	575.7	569.4	557.0	547.6	540.3	527.8	522.6	516.4	515.4	509.1
25°	547.6	540.3	534.1	523.7	515.4	509.1	497.7	491.5	487.3	487.3	482.1
27.5°	498.7	492.5	491.5	483.1	476.9	472.8	463.4	459.3	454.0	454.0	447.8
30°	433.3	434.3	438.4	436.4	434.3	432.3	423.9	422.9	416.7	415.6	408.3
32.5°	353.2	360.6	372.0	378.2	381.3	383.4	381.3	379.2	374.1	373.0	364.7
35°	268.1	282.7	301.3	313.8	324.1	331.5	334.6	334.6	332.5	331.5	324.1
37.5°	194.3	216.1	241.1	261.8	278.4	292.0	298.2	302.4	302.4	302.4	299.3
40°	142.4	168.4	197.5	224.5	245.2	262.9	272.3	279.5	281.6	284.7	282.7
42.5°	106.0	134.0	165.2	196.4	220.3	240.1	252.4	260.8	266.0	269.2	269.2
45°	81.1	109.1	141.3	174.6	199.5	221.3	233.8	243.2	248.3	252.4	252.4
47.5°	62.3	89.3	121.5	154.8	180.8	202.6	215.1	223.4	228.6	232.7	232.7
50°	48.8	73.8	104.9	137.1	163.1	183.9	195.4	203.6	207.8	211.0	212.0
52.5°	39.5	62.3	92.4	123.7	147.5	166.2	175.6	182.9	187.0	189.1	190.1
55°	32.2	54.1	82.1	110.2	133.0	150.6	159.0	164.1	167.3	169.4	169.4
57.5°	27.0	46.7	72.7	99.8	121.5	135.0	142.4	146.5	148.6	150.6	150.6
60°	22.9	40.5	64.4	89.3	109.1	121.5	126.8	129.9	131.9	133.0	133.0
62.5°	19.7	34.3	56.1	78.9	96.7	108.0	112.2	114.3	115.3	115.3	116.4
65°	16.6	29.1	47.8	68.6	83.1	93.5	96.7	97.7	97.7	98.7	99.8
67.5°	12.5	22.9	38.5	56.1	68.6	76.9	80.0	80.0	80.0	80.0	81.1
70°	10.4	17.6	29.1	42.6	53.0	59.2	61.3	61.3	61.3	61.3	62.3
72.5°	7.3	12.5	20.7	30.1	38.5	42.6	42.6	43.6	42.6	42.6	44.7
75°	5.2	8.4	13.5	19.7	23.9	27.0	28.1	28.1	28.1	28.1	29.1
77.5°	3.1	5.2	8.4	11.5	15.6	16.6	17.6	17.6	17.6	17.6	18.7
80°	2.1	3.1	5.2	7.3	8.4	9.4	10.4	10.4	10.4	10.4	10.4
82.5°	1.0	2.1	3.1	3.1	4.1	5.2	5.2	5.2	5.2	5.2	6.2
85°	0.0	1.0	1.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	3.1
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



TEST NUMBER: P135884

CATALOG NUMBER: LD6A10D010TE ERM6A10927 6LM121H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	687.9	687.9	687.9	687.9
2.5°	675.4	682.6	677.5	682.6
5°	665.0	671.2	665.0	669.1
7.5°	644.3	649.4	643.2	649.4
10°	619.3	624.5	618.3	623.4
12.5°	596.4	600.6	594.3	600.6
15°	575.7	579.8	573.6	578.8
17.5°	551.7	554.8	549.7	554.8
20°	526.8	530.0	525.7	531.0
22.5°	501.9	506.0	500.9	506.0
25°	473.8	476.9	471.8	478.0
27.5°	440.5	442.7	437.4	440.5
30°	400.1	401.1	396.9	403.2
32.5°	357.5	357.5	351.2	357.5
35°	318.0	316.9	312.8	316.9
37.5°	293.0	293.0	289.9	292.0
40°	278.4	279.5	275.3	279.5
42.5°	266.0	268.1	264.9	268.1
45°	250.4	252.4	249.3	253.6
47.5°	230.7	232.7	230.7	233.8
50°	208.8	211.0	208.8	212.0
52.5°	187.0	189.1	187.0	189.1
55°	167.3	168.4	166.2	168.4
57.5°	148.6	149.6	147.5	149.6
60°	130.9	133.0	130.9	133.0
62.5°	115.3	116.4	116.4	117.4
65°	98.7	102.9	101.8	102.9
67.5°	82.1	85.2	85.2	86.2
70°	63.3	65.5	67.6	68.6
72.5°	44.7	47.8	48.8	49.8
75°	29.1	32.2	32.2	33.2
77.5°	18.7	20.7	20.7	20.7
80°	11.5	12.5	11.5	12.5
82.5°	6.2	6.2	6.2	7.3
85°	3.1	3.1	3.1	3.1
87.5°	1.0	1.0	1.0	1.0
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)