

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: P226253

Luminaire Tested: **LD2B10D010 EU2B10WW9050 2LBSW***

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P226253
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P14828)
Test Lab: INNOVATION CENTER (G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD2B10D010 EU2B10WW9050 2LBSW*
Description: 1000 Lumen, 2inch Portfolio LED Downlight
WALL WASH OPTIC
WALL WASH LENSED TRIM
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 644.4 lumens
Efficiency: N/A
Efficacy: 62.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.79 / 1.02
Luminous Opening: Rectangular (W 0.17' x L: 0.17' x H: 0')
CIE Type: Direct

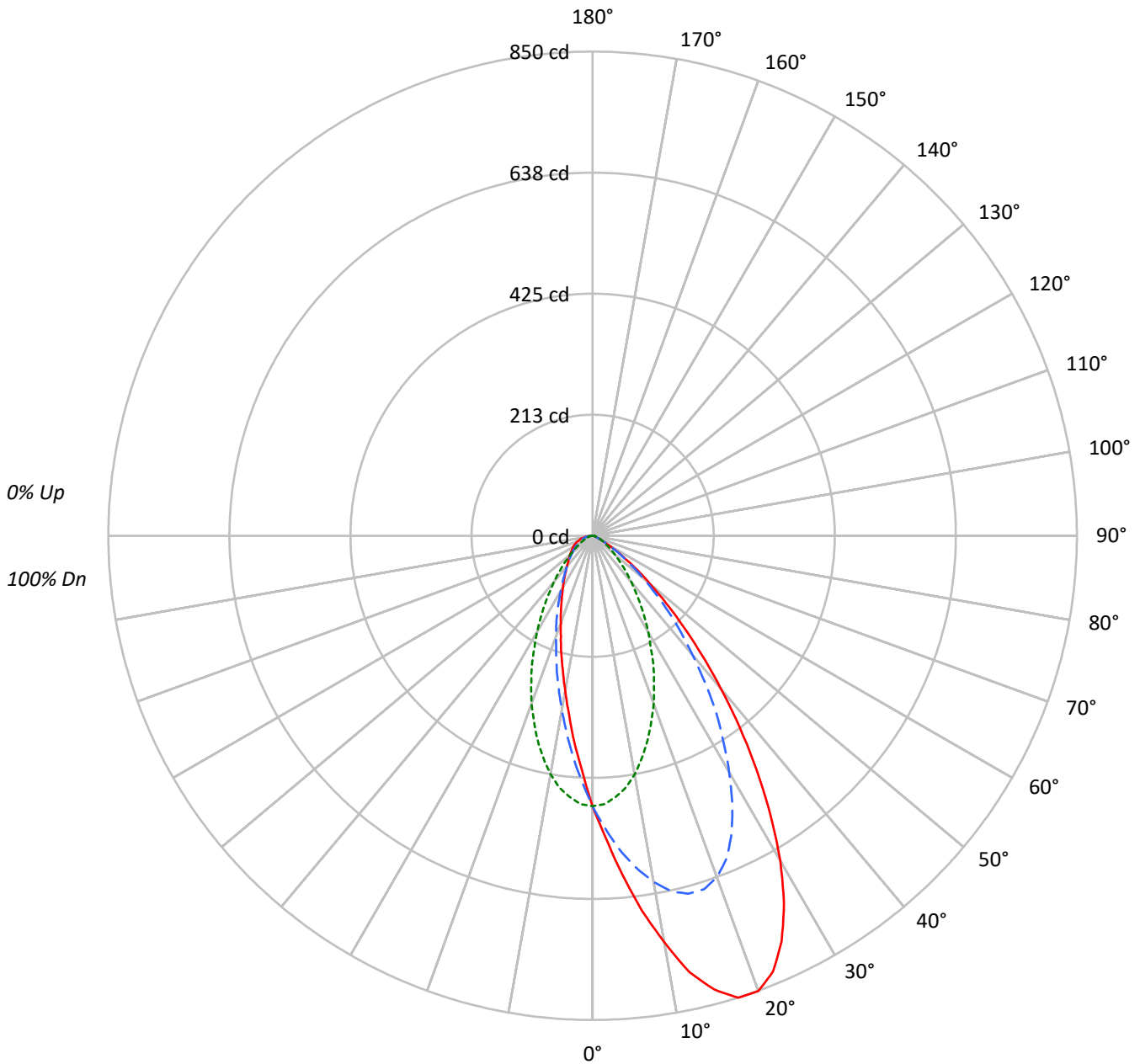
Input Watts (W): 10.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P226253

CATALOG NUMBER: LD2B10D010 EU2B10WW9050 2LBSW*

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			
1	112	109	105	103	109	106	104	101	102	100	98	98	97	95	95	94	92	90			
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81			
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66			
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60			
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55			
7	76	65	58	53	75	64	58	53	63	57	52	62	56	52	60	56	52	50			
8	72	60	53	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46			
9	68	56	50	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43			
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	183912	183912	183912
5°	231818	179015	141727
10°	284804	167240	108753
15°	330753	149336	85255
20°	350539	129144	67189
25°	335458	107958	55347
30°	294571	87217	46471
35°	237330	68801	40051
40°	177026	53345	35547
45°	122595	40263	32374
50°	79001	29889	30853
55°	46394	22691	30254
60°	24790	18593	30988
65°	11732	14665	30796
70°	5436	12684	30805
75°	7184	11973	33524
80°	7138	10707	32121
85°	7111	14222	28443



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.9	7.0
10°-20°	125.2	19.4
20°-30°	163.3	25.3
30°-40°	141.4	21.9
40°-50°	89.5	13.9
50°-60°	44.9	7.0
60°-70°	20.6	3.2
70°-80°	11.1	1.7
80°-90°	3.6	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°-30°	333.4	51.7
0°-40°	474.8	73.7
0°-60°	609.1	94.5
0°-90°	644.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	644.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	475	475	475	475	475	
5°	596	555	460	390	364	61
15°	825	651	372	243	213	232
25°	785	577	253	146	130	355
35°	502	377	146	88	85	312
45°	224	187	74	58	59	176
55°	69	64	34	38	45	66
65°	13	14	16	27	34	15
75°	5	5	8	16	22	4
85°	2	2	3	5	6	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8
2.5°	530.7	533.9	533.9	535.5	529.1	530.7	530.7	527.5	522.7	519.5	514.7
5°	596.2	596.2	594.6	596.2	591.4	588.2	589.8	583.4	570.7	564.3	554.7
7.5°	663.4	660.2	660.2	658.6	650.6	645.8	644.2	633.0	615.4	602.6	588.2
10°	724.1	724.1	720.9	717.7	706.5	700.1	695.3	677.8	658.6	637.8	617.0
12.5°	784.9	781.7	776.9	770.5	754.5	748.1	740.1	719.3	690.5	666.6	639.4
15°	824.8	826.4	818.4	810.4	792.9	783.3	773.7	748.1	714.5	684.2	650.6
17.5°	850.4	848.8	840.8	831.2	812.0	800.8	789.7	759.3	724.1	687.4	650.6
20°	850.4	850.4	840.8	831.2	810.4	797.6	786.5	754.5	716.1	677.8	637.8
22.5°	828.0	824.8	818.4	808.8	788.1	776.9	764.1	732.1	692.1	655.4	613.8
25°	784.9	784.9	776.9	765.7	748.1	735.3	724.1	692.1	653.8	617.0	577.1
27.5°	727.3	725.7	717.7	709.7	690.5	681.0	669.8	639.4	605.8	572.3	530.7
30°	658.6	655.4	652.2	639.4	626.6	618.6	609.0	581.9	548.3	516.3	479.5
32.5°	580.3	585.0	577.1	569.1	557.9	549.9	541.9	521.1	490.7	462.0	426.8
35°	501.9	505.1	500.3	493.9	482.7	477.9	470.0	452.4	430.0	402.8	377.2
37.5°	423.6	423.6	423.6	418.8	412.4	407.6	402.8	386.8	367.7	346.9	322.9
40°	350.1	354.9	348.5	346.9	342.1	340.5	335.7	324.5	308.5	294.1	271.7
42.5°	282.9	282.9	284.5	281.3	279.7	276.5	273.3	266.9	255.8	243.0	228.6
45°	223.8	225.4	227.0	222.2	222.2	222.2	220.6	214.2	204.6	196.6	187.0
47.5°	174.2	174.2	175.8	174.2	174.2	174.2	171.0	171.0	164.6	156.7	148.7
50°	131.1	132.7	134.3	134.3	134.3	132.7	132.7	129.5	126.3	123.1	115.1
52.5°	99.1	99.1	97.5	99.1	99.1	99.1	99.1	97.5	95.9	92.7	87.9
55°	68.7	68.7	70.3	70.3	70.3	71.9	71.9	71.9	70.3	68.7	63.9
57.5°	48.0	48.0	48.0	49.6	51.2	51.2	51.2	51.2	49.6	48.0	46.4
60°	32.0	32.0	32.0	33.6	33.6	33.6	33.6	35.2	33.6	33.6	32.0
62.5°	20.8	20.8	20.8	20.8	20.8	22.4	22.4	22.4	22.4	22.4	20.8
65°	12.8	12.8	12.8	12.8	12.8	12.8	14.4	14.4	14.4	14.4	14.4
67.5°	8.0	8.0	8.0	8.0	8.0	9.6	9.6	9.6	9.6	9.6	9.6
70°	4.8	4.8	4.8	4.8	6.4	6.4	6.4	6.4	6.4	6.4	6.4
72.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
75°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
77.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.8	4.8	4.8
80°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.2	3.2	1.6
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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



TEST NUMBER: P226253

CATALOG NUMBER: LD2B10D010 EU2B10WW9050 2LBSW*

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8
2.5°	514.7	508.3	505.1	497.1	495.5	489.1	489.1	482.7	474.8	471.6	463.6
5°	548.3	535.5	529.1	514.7	509.9	500.3	495.5	482.7	470.0	460.4	449.2
7.5°	577.1	557.9	545.1	525.9	517.9	503.5	493.9	477.9	460.4	446.0	430.0
10°	599.4	573.9	554.7	529.1	519.5	501.9	487.5	465.2	442.8	425.2	406.0
12.5°	613.8	583.4	556.3	525.9	513.1	493.9	473.2	447.6	422.0	399.6	378.8
15°	620.2	583.4	551.5	514.7	500.3	479.5	455.6	425.2	396.4	372.4	350.1
17.5°	615.4	572.3	538.7	497.1	481.1	457.2	430.0	398.0	367.7	342.1	319.7
20°	599.4	554.7	516.3	473.2	455.6	431.6	401.2	369.3	338.9	313.3	289.3
22.5°	572.3	525.9	485.9	442.8	425.2	401.2	369.3	337.3	306.9	281.3	259.0
25°	538.7	489.1	449.2	407.6	388.4	367.7	335.7	303.7	274.9	252.6	230.2
27.5°	493.9	450.8	410.8	369.3	351.7	332.5	300.5	271.7	243.0	220.6	201.4
30°	446.0	404.4	370.9	330.9	314.9	295.7	268.5	239.8	215.8	195.0	177.4
32.5°	398.0	358.1	326.1	292.5	278.1	259.0	235.0	209.4	187.0	169.4	155.1
35°	348.5	314.9	284.5	252.6	241.4	225.4	203.0	180.6	161.4	145.5	131.1
37.5°	298.9	271.7	244.6	219.0	206.2	193.4	172.6	153.5	135.9	123.1	111.9
40°	254.2	230.2	207.8	183.8	172.6	163.0	145.5	129.5	116.7	105.5	95.9
42.5°	211.0	191.8	172.6	153.5	143.9	135.9	121.5	107.1	95.9	87.9	79.9
45°	172.6	158.3	142.3	124.7	119.9	110.3	99.1	89.5	79.9	73.5	67.1
47.5°	139.1	126.3	113.5	100.7	95.9	89.5	79.9	71.9	65.5	60.7	55.9
50°	108.7	99.1	91.1	79.9	76.7	70.3	63.9	57.5	52.8	49.6	46.4
52.5°	83.1	75.1	68.7	62.3	59.1	55.9	49.6	46.4	43.2	41.6	40.0
55°	60.7	55.9	51.2	46.4	44.8	41.6	38.4	35.2	33.6	33.6	33.6
57.5°	43.2	40.0	36.8	33.6	33.6	32.0	30.4	28.8	27.2	27.2	27.2
60°	30.4	28.8	27.2	25.6	24.0	24.0	22.4	24.0	22.4	24.0	24.0
62.5°	20.8	19.2	19.2	17.6	17.6	17.6	17.6	17.6	19.2	19.2	20.8
65°	12.8	12.8	12.8	12.8	12.8	12.8	14.4	14.4	14.4	16.0	16.0
67.5°	9.6	9.6	9.6	11.2	11.2	11.2	11.2	12.8	12.8	12.8	14.4
70°	6.4	8.0	8.0	8.0	8.0	8.0	9.6	9.6	9.6	11.2	11.2
72.5°	6.4	6.4	6.4	6.4	6.4	6.4	8.0	8.0	8.0	9.6	9.6
75°	4.8	6.4	6.4	6.4	6.4	6.4	6.4	8.0	8.0	8.0	9.6
77.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	6.4	6.4	6.4	6.4
80°	3.2	3.2	3.2	4.8	4.8	4.8	4.8	4.8	4.8	4.8	6.4
82.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	4.8
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.2	1.6	3.2	3.2
87.5°	0.0	0.0	0.0	1.6	0.0	1.6	1.6	1.6	1.6	1.6	1.6
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: LD2B10D010 EU2B10WW9050 2LBSW*

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8
2.5°	460.4	455.6	457.2	447.6	449.2	442.8	439.6	434.8	431.6	426.8	428.4
5°	441.2	433.2	430.0	418.8	420.4	410.8	404.4	396.4	390.0	382.0	380.4
7.5°	417.2	404.4	399.6	388.4	386.8	374.0	366.1	356.5	348.5	340.5	337.3
10°	390.0	375.6	366.1	354.9	353.3	338.9	329.3	319.7	310.1	302.1	298.9
12.5°	361.3	345.3	334.1	321.3	318.1	305.3	294.1	284.5	274.9	266.9	262.2
15°	330.9	313.3	302.1	289.3	286.1	271.7	262.2	251.0	243.0	235.0	231.8
17.5°	300.5	282.9	270.1	259.0	255.8	241.4	230.2	222.2	212.6	207.8	203.0
20°	270.1	252.6	239.8	230.2	225.4	214.2	203.0	195.0	187.0	182.2	177.4
22.5°	239.8	223.8	212.6	203.0	199.8	188.6	179.0	171.0	166.2	159.8	156.7
25°	212.6	196.6	187.0	177.4	174.2	164.6	158.3	150.3	145.5	140.7	137.5
27.5°	187.0	172.6	163.0	155.1	153.5	145.5	137.5	132.7	127.9	124.7	123.1
30°	161.4	150.3	142.3	135.9	134.3	126.3	119.9	116.7	111.9	110.3	108.7
32.5°	142.3	131.1	124.7	118.3	116.7	110.3	107.1	102.3	99.1	97.5	97.5
35°	121.5	113.5	107.1	103.9	102.3	97.5	92.7	91.1	87.9	86.3	86.3
37.5°	103.9	97.5	92.7	87.9	87.9	84.7	81.5	79.9	78.3	78.3	76.7
40°	89.5	83.1	81.5	78.3	76.7	75.1	73.5	71.9	70.3	70.3	70.3
42.5°	75.1	71.9	68.7	67.1	67.1	65.5	63.9	63.9	62.3	63.9	63.9
45°	63.9	60.7	59.1	57.5	59.1	57.5	57.5	55.9	57.5	57.5	57.5
47.5°	54.3	52.8	51.2	51.2	51.2	51.2	51.2	51.2	51.2	52.8	52.8
50°	46.4	44.8	44.8	44.8	44.8	44.8	46.4	46.4	46.4	48.0	48.0
52.5°	38.4	38.4	38.4	38.4	40.0	40.0	41.6	41.6	43.2	43.2	44.8
55°	33.6	33.6	33.6	33.6	35.2	35.2	36.8	38.4	38.4	40.0	41.6
57.5°	28.8	28.8	30.4	30.4	32.0	32.0	33.6	35.2	35.2	36.8	38.4
60°	24.0	25.6	27.2	27.2	27.2	28.8	30.4	32.0	32.0	33.6	35.2
62.5°	20.8	22.4	24.0	24.0	24.0	25.6	27.2	28.8	28.8	30.4	32.0
65°	17.6	19.2	20.8	20.8	20.8	22.4	24.0	25.6	27.2	27.2	28.8
67.5°	16.0	16.0	17.6	17.6	19.2	20.8	20.8	22.4	24.0	25.6	27.2
70°	12.8	14.4	16.0	16.0	16.0	17.6	19.2	20.8	20.8	22.4	24.0
72.5°	11.2	11.2	12.8	12.8	14.4	16.0	16.0	17.6	19.2	19.2	20.8
75°	9.6	11.2	11.2	11.2	12.8	12.8	14.4	16.0	16.0	17.6	17.6
77.5°	8.0	8.0	9.6	9.6	9.6	11.2	11.2	12.8	12.8	14.4	14.4
80°	6.4	6.4	8.0	8.0	8.0	8.0	9.6	9.6	11.2	11.2	11.2
82.5°	4.8	4.8	4.8	4.8	6.4	6.4	6.4	6.4	8.0	8.0	8.0
85°	3.2	3.2	3.2	3.2	3.2	4.8	4.8	4.8	4.8	4.8	6.4
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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: LD2B10D010 EU2B10WW9050 2LBSW*

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	474.8	474.8	474.8	474.8	474.8	474.8	474.8	474.8
2.5°	423.6	423.6	422.0	420.4	418.8	417.2	415.6	414.0
5°	375.6	377.2	370.9	369.3	369.3	366.1	367.7	364.5
7.5°	330.9	330.9	326.1	324.5	322.9	319.7	318.1	316.5
10°	290.9	289.3	286.1	284.5	281.3	279.7	279.7	276.5
12.5°	255.8	254.2	251.0	249.4	246.2	244.6	243.0	241.4
15°	225.4	223.8	220.6	219.0	217.4	214.2	214.2	212.6
17.5°	196.6	195.0	193.4	190.2	190.2	187.0	185.4	185.4
20°	174.2	172.6	169.4	167.8	167.8	166.2	166.2	163.0
22.5°	153.5	151.9	150.3	148.7	148.7	147.1	145.5	145.5
25°	135.9	134.3	132.7	132.7	131.1	129.5	129.5	129.5
27.5°	119.9	119.9	118.3	118.3	118.3	116.7	116.7	115.1
30°	107.1	107.1	105.5	105.5	105.5	103.9	105.5	103.9
32.5°	95.9	95.9	95.9	95.9	95.9	94.3	94.3	94.3
35°	86.3	86.3	86.3	86.3	86.3	84.7	86.3	84.7
37.5°	76.7	78.3	76.7	76.7	78.3	76.7	76.7	76.7
40°	70.3	70.3	70.3	70.3	70.3	70.3	70.3	70.3
42.5°	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9
45°	57.5	59.1	59.1	59.1	59.1	59.1	59.1	59.1
47.5°	54.3	54.3	54.3	54.3	55.9	54.3	55.9	55.9
50°	49.6	49.6	49.6	51.2	51.2	51.2	51.2	51.2
52.5°	46.4	46.4	46.4	46.4	48.0	48.0	48.0	48.0
55°	41.6	43.2	43.2	43.2	44.8	44.8	44.8	44.8
57.5°	40.0	40.0	40.0	41.6	41.6	41.6	43.2	41.6
60°	36.8	36.8	38.4	38.4	38.4	40.0	40.0	40.0
62.5°	33.6	35.2	35.2	35.2	35.2	36.8	36.8	36.8
65°	30.4	32.0	32.0	32.0	33.6	33.6	33.6	33.6
67.5°	27.2	28.8	28.8	30.4	30.4	30.4	30.4	30.4
70°	24.0	25.6	25.6	25.6	27.2	27.2	27.2	27.2
72.5°	22.4	22.4	22.4	24.0	24.0	24.0	25.6	24.0
75°	19.2	20.8	20.8	20.8	20.8	20.8	22.4	22.4
77.5°	16.0	16.0	16.0	16.0	17.6	17.6	17.6	17.6
80°	12.8	12.8	12.8	12.8	14.4	14.4	14.4	14.4
82.5°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
85°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
87.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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













(END OF REPORT)