

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: P226255

Luminaire Tested: **LD2B10D010 EU2B10WW9730 2LBSW\***

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P226255  
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 EU2B10WW9730 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: 543.0 lumens  
Efficiency: N/A  
Efficacy: 52.7 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

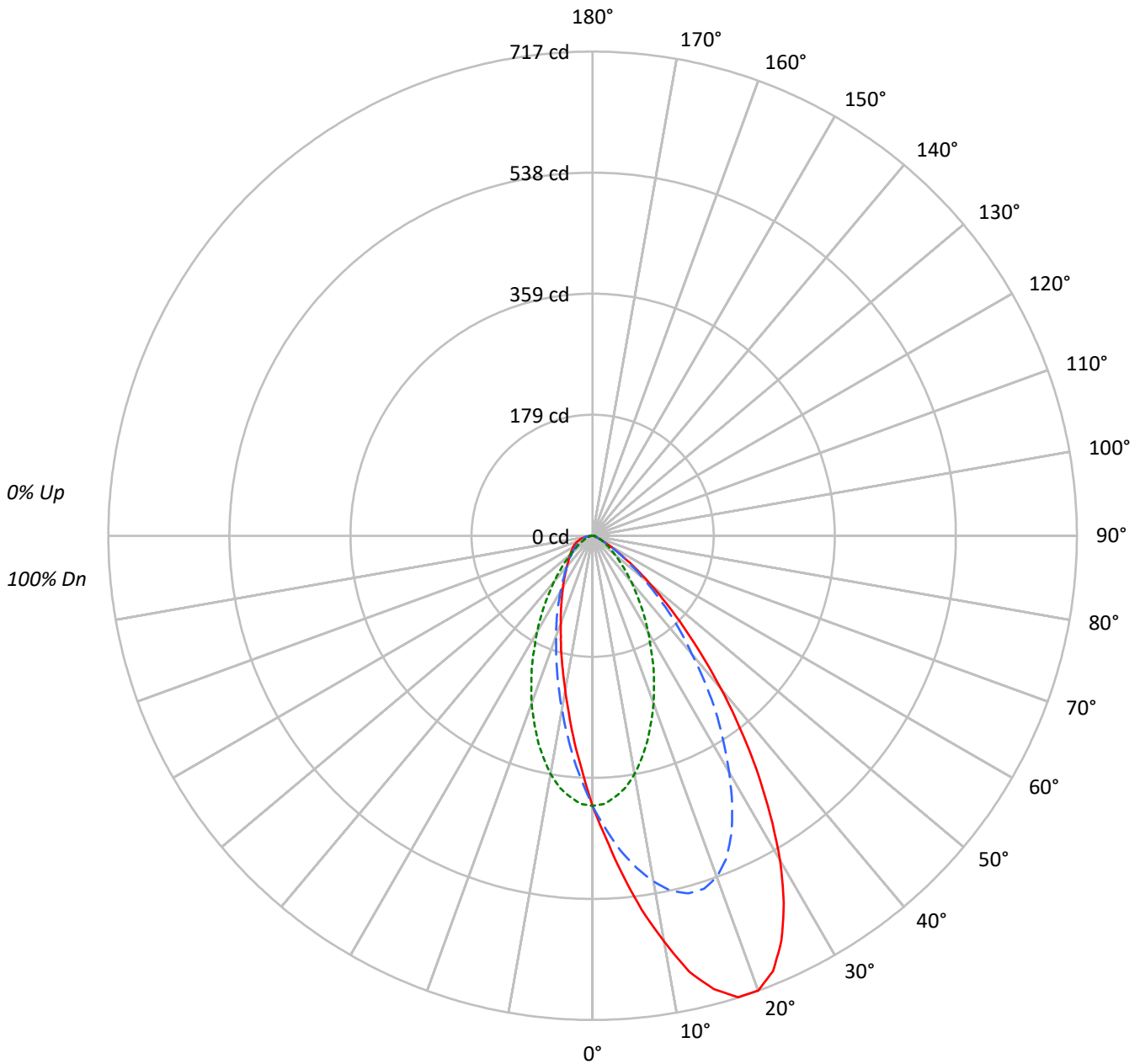
Input Watts (W): 10.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	154977	154977	154977
5°	195346	150825	119408
10°	240005	140927	91644
15°	278742	125877	71861
20°	295386	108822	56637
25°	282675	90948	46628
30°	248234	73486	39181
35°	200021	57973	33762
40°	149165	44952	29985
45°	103313	33963	27280
50°	66588	25189	25972
55°	39101	19111	25459
60°	20839	15649	26107
65°	9899	12373	25938
70°	4530	10646	25935
75°	5986	10027	28286
80°	6023	8923	26991
85°	5778	12000	23999



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.8	7.0
10°-20°	105.5	19.4
20°-30°	137.6	25.3
30°-40°	119.2	21.9
40°-50°	75.4	13.9
50°-60°	37.8	7.0
60°-70°	17.4	3.2
70°-80°	9.3	1.7
80°-90°	3.0	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°	280.9	51.7
0°-40°	400.1	73.7
0°-60°	513.3	94.5
0°-90°	543.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	543.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	400	400	400	400	400	
5°	502	467	388	329	307	51
15°	695	548	314	205	179	195
25°	661	486	213	123	109	300
35°	423	318	123	74	71	263
45°	189	158	62	48	50	148
55°	58	54	28	32	38	55
65°	11	12	14	23	28	12
75°	4	4	7	14	19	4
85°	1	1	3	4	5	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°	400.1	400.1	400.1	400.1	400.1	400.1	400.1	400.1	400.1	400.1	400.1
2.5°	447.2	449.9	449.9	451.3	445.9	447.2	447.2	444.5	440.5	437.8	433.7
5°	502.4	502.4	501.1	502.4	498.4	495.7	497.0	491.7	480.9	475.5	467.4
7.5°	559.0	556.3	556.3	555.0	548.2	544.2	542.8	533.4	518.6	507.8	495.7
10°	610.2	610.2	607.5	604.8	595.4	590.0	586.0	571.1	555.0	537.5	519.9
12.5°	661.4	658.7	654.6	649.3	635.8	630.4	623.7	606.2	581.9	561.7	538.8
15°	695.1	696.4	689.7	682.9	668.1	660.0	652.0	630.4	602.1	576.5	548.2
17.5°	716.6	715.3	708.5	700.4	684.3	674.9	665.4	639.8	610.2	579.2	548.2
20°	716.6	716.6	708.5	700.4	682.9	672.2	662.7	635.8	603.5	571.1	537.5
22.5°	697.8	695.1	689.7	681.6	664.1	654.6	643.9	616.9	583.3	552.3	517.3
25°	661.4	661.4	654.6	645.2	630.4	619.6	610.2	583.3	550.9	519.9	486.3
27.5°	612.9	611.5	604.8	598.1	581.9	573.8	564.4	538.8	510.5	482.2	447.2
30°	555.0	552.3	549.6	538.8	528.0	521.3	513.2	490.3	462.0	435.1	404.1
32.5°	489.0	493.0	486.3	479.5	470.1	463.4	456.6	439.1	413.5	389.3	359.7
35°	423.0	425.7	421.6	416.2	406.8	402.8	396.0	381.2	362.3	339.4	317.9
37.5°	357.0	357.0	357.0	352.9	347.5	343.5	339.4	326.0	309.8	292.3	272.1
40°	295.0	299.0	293.6	292.3	288.3	286.9	282.9	273.4	260.0	247.9	229.0
42.5°	238.4	238.4	239.8	237.1	235.7	233.0	230.3	225.0	215.5	204.7	192.6
45°	188.6	189.9	191.3	187.2	187.2	187.2	185.9	180.5	172.4	165.7	157.6
47.5°	146.8	146.8	148.2	146.8	146.8	146.8	144.1	144.1	138.7	132.0	125.3
50°	110.5	111.8	113.1	113.1	113.1	111.8	111.8	109.1	106.4	103.7	97.0
52.5°	83.5	83.5	82.2	83.5	83.5	83.5	83.5	82.2	80.8	78.1	74.1
55°	57.9	57.9	59.3	59.3	59.3	60.6	60.6	60.6	59.3	57.9	53.9
57.5°	40.4	40.4	40.4	41.8	43.1	43.1	43.1	43.1	41.8	40.4	39.1
60°	26.9	26.9	26.9	28.3	28.3	28.3	28.3	29.6	28.3	28.3	26.9
62.5°	17.5	17.5	17.5	17.5	17.5	18.9	18.9	18.9	18.9	18.9	17.5
65°	10.8	10.8	10.8	10.8	10.8	10.8	12.1	12.1	12.1	12.1	12.1
67.5°	6.7	6.7	6.7	6.7	6.7	8.1	8.1	8.1	8.1	8.1	8.1
70°	4.0	4.0	4.0	4.0	5.4	5.4	5.4	5.4	5.4	5.4	5.4
72.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
75°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
77.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.0	4.0	4.0
80°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.7	2.7	1.3
85°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	400.1	400.1	400.1	400.1	400.1	400.1	400.1	400.1	400.1	400.1	400.1
2.5°	433.7	428.4	425.7	418.9	417.6	412.2	412.2	406.8	400.1	397.4	390.6
5°	462.0	451.3	445.9	433.7	429.7	421.6	417.6	406.8	396.0	387.9	378.5
7.5°	486.3	470.1	459.3	443.2	436.4	424.3	416.2	402.8	387.9	375.8	362.3
10°	505.1	483.6	467.4	445.9	437.8	423.0	410.8	392.0	373.1	358.3	342.1
12.5°	517.3	491.7	468.8	443.2	432.4	416.2	398.7	377.2	355.6	336.8	319.2
15°	522.6	491.7	464.7	433.7	421.6	404.1	383.9	358.3	334.1	313.9	295.0
17.5°	518.6	482.2	453.9	418.9	405.5	385.2	362.3	335.4	309.8	288.3	269.4
20°	505.1	467.4	435.1	398.7	383.9	363.7	338.1	311.2	285.6	264.0	243.8
22.5°	482.2	443.2	409.5	373.1	358.3	338.1	311.2	284.2	258.6	237.1	218.2
25°	453.9	412.2	378.5	343.5	327.3	309.8	282.9	255.9	231.7	212.8	194.0
27.5°	416.2	379.9	346.2	311.2	296.3	280.2	253.2	229.0	204.7	185.9	169.7
30°	375.8	340.8	312.5	278.8	265.4	249.2	226.3	202.1	181.8	164.3	149.5
32.5°	335.4	301.7	274.8	246.5	234.4	218.2	198.0	176.5	157.6	142.8	130.7
35°	293.6	265.4	239.8	212.8	203.4	189.9	171.1	152.2	136.0	122.6	110.5
37.5°	251.9	229.0	206.1	184.5	173.8	163.0	145.5	129.3	114.5	103.7	94.3
40°	214.2	194.0	175.1	154.9	145.5	137.4	122.6	109.1	98.3	88.9	80.8
42.5°	177.8	161.6	145.5	129.3	121.2	114.5	102.4	90.3	80.8	74.1	67.4
45°	145.5	133.4	119.9	105.1	101.0	92.9	83.5	75.4	67.4	62.0	56.6
47.5°	117.2	106.4	95.6	84.9	80.8	75.4	67.4	60.6	55.2	51.2	47.1
50°	91.6	83.5	76.8	67.4	64.7	59.3	53.9	48.5	44.5	41.8	39.1
52.5°	70.0	63.3	57.9	52.5	49.8	47.1	41.8	39.1	36.4	35.0	33.7
55°	51.2	47.1	43.1	39.1	37.7	35.0	32.3	29.6	28.3	28.3	28.3
57.5°	36.4	33.7	31.0	28.3	28.3	26.9	25.6	24.2	22.9	22.9	22.9
60°	25.6	24.2	22.9	21.6	20.2	20.2	18.9	20.2	18.9	20.2	20.2
62.5°	17.5	16.2	16.2	14.8	14.8	14.8	14.8	14.8	16.2	16.2	17.5
65°	10.8	10.8	10.8	10.8	10.8	10.8	12.1	12.1	12.1	13.5	13.5
67.5°	8.1	8.1	8.1	9.4	9.4	9.4	9.4	10.8	10.8	10.8	12.1
70°	5.4	6.7	6.7	6.7	6.7	6.7	8.1	8.1	8.1	9.4	9.4
72.5°	5.4	5.4	5.4	5.4	5.4	5.4	6.7	6.7	6.7	8.1	8.1
75°	4.0	5.4	5.4	5.4	5.4	5.4	5.4	6.7	6.7	6.7	8.1
77.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.4	5.4	5.4	5.4
80°	2.7	2.7	2.7	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.4
82.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	4.0
85°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.7	1.3	2.7	2.7
87.5°	0.0	0.0	0.0	1.3	0.0	1.3	1.3	1.3	1.3	1.3	1.3
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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	400.1	400.1	400.1	400.1	400.1	400.1	400.1	400.1	400.1	400.1	400.1
2.5°	387.9	383.9	385.2	377.2	378.5	373.1	370.4	366.4	363.7	359.7	361.0
5°	371.8	365.0	362.3	352.9	354.3	346.2	340.8	334.1	328.7	321.9	320.6
7.5°	351.6	340.8	336.8	327.3	326.0	315.2	308.5	300.4	293.6	286.9	284.2
10°	328.7	316.5	308.5	299.0	297.7	285.6	277.5	269.4	261.3	254.6	251.9
12.5°	304.4	291.0	281.5	270.8	268.1	257.3	247.9	239.8	231.7	225.0	220.9
15°	278.8	264.0	254.6	243.8	241.1	229.0	220.9	211.5	204.7	198.0	195.3
17.5°	253.2	238.4	227.6	218.2	215.5	203.4	194.0	187.2	179.2	175.1	171.1
20°	227.6	212.8	202.1	194.0	189.9	180.5	171.1	164.3	157.6	153.6	149.5
22.5°	202.1	188.6	179.2	171.1	168.4	158.9	150.9	144.1	140.1	134.7	132.0
25°	179.2	165.7	157.6	149.5	146.8	138.7	133.4	126.6	122.6	118.5	115.8
27.5°	157.6	145.5	137.4	130.7	129.3	122.6	115.8	111.8	107.8	105.1	103.7
30°	136.0	126.6	119.9	114.5	113.1	106.4	101.0	98.3	94.3	92.9	91.6
32.5°	119.9	110.5	105.1	99.7	98.3	92.9	90.3	86.2	83.5	82.2	82.2
35°	102.4	95.6	90.3	87.6	86.2	82.2	78.1	76.8	74.1	72.7	72.7
37.5°	87.6	82.2	78.1	74.1	74.1	71.4	68.7	67.4	66.0	66.0	64.7
40°	75.4	70.0	68.7	66.0	64.7	63.3	62.0	60.6	59.3	59.3	59.3
42.5°	63.3	60.6	57.9	56.6	56.6	55.2	53.9	53.9	52.5	53.9	53.9
45°	53.9	51.2	49.8	48.5	49.8	48.5	48.5	47.1	48.5	48.5	48.5
47.5°	45.8	44.5	43.1	43.1	43.1	43.1	43.1	43.1	43.1	44.5	44.5
50°	39.1	37.7	37.7	37.7	37.7	37.7	39.1	39.1	39.1	40.4	40.4
52.5°	32.3	32.3	32.3	32.3	33.7	33.7	35.0	35.0	36.4	36.4	37.7
55°	28.3	28.3	28.3	28.3	29.6	29.6	31.0	32.3	32.3	33.7	35.0
57.5°	24.2	24.2	25.6	25.6	26.9	26.9	28.3	29.6	29.6	31.0	32.3
60°	20.2	21.6	22.9	22.9	22.9	24.2	25.6	26.9	26.9	28.3	29.6
62.5°	17.5	18.9	20.2	20.2	20.2	21.6	22.9	24.2	24.2	25.6	26.9
65°	14.8	16.2	17.5	17.5	17.5	18.9	20.2	21.6	22.9	22.9	24.2
67.5°	13.5	13.5	14.8	14.8	16.2	17.5	17.5	18.9	20.2	21.6	22.9
70°	10.8	12.1	13.5	13.5	13.5	14.8	16.2	17.5	17.5	18.9	20.2
72.5°	9.4	9.4	10.8	10.8	12.1	13.5	13.5	14.8	16.2	16.2	17.5
75°	8.1	9.4	9.4	9.4	10.8	10.8	12.1	13.5	13.5	14.8	14.8
77.5°	6.7	6.7	8.1	8.1	8.1	9.4	9.4	10.8	10.8	12.1	12.1
80°	5.4	5.4	6.7	6.7	6.7	6.7	8.1	8.1	9.4	9.4	9.4
82.5°	4.0	4.0	4.0	4.0	5.4	5.4	5.4	5.4	6.7	6.7	6.7
85°	2.7	2.7	2.7	2.7	2.7	4.0	4.0	4.0	4.0	4.0	5.4
87.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
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 EU2B10WW9730 2LBSW\*

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	400.1	400.1	400.1	400.1	400.1	400.1	400.1	400.1
2.5°	357.0	357.0	355.6	354.3	352.9	351.6	350.2	348.9
5°	316.5	317.9	312.5	311.2	311.2	308.5	309.8	307.1
7.5°	278.8	278.8	274.8	273.4	272.1	269.4	268.1	266.7
10°	245.2	243.8	241.1	239.8	237.1	235.7	235.7	233.0
12.5°	215.5	214.2	211.5	210.1	207.4	206.1	204.7	203.4
15°	189.9	188.6	185.9	184.5	183.2	180.5	180.5	179.2
17.5°	165.7	164.3	163.0	160.3	160.3	157.6	156.3	156.3
20°	146.8	145.5	142.8	141.4	141.4	140.1	140.1	137.4
22.5°	129.3	128.0	126.6	125.3	125.3	123.9	122.6	122.6
25°	114.5	113.1	111.8	111.8	110.5	109.1	109.1	109.1
27.5°	101.0	101.0	99.7	99.7	99.7	98.3	98.3	97.0
30°	90.3	90.3	88.9	88.9	88.9	87.6	88.9	87.6
32.5°	80.8	80.8	80.8	80.8	80.8	79.5	79.5	79.5
35°	72.7	72.7	72.7	72.7	72.7	71.4	72.7	71.4
37.5°	64.7	66.0	64.7	64.7	66.0	64.7	64.7	64.7
40°	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3
42.5°	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9
45°	48.5	49.8	49.8	49.8	49.8	49.8	49.8	49.8
47.5°	45.8	45.8	45.8	45.8	47.1	45.8	47.1	47.1
50°	41.8	41.8	41.8	43.1	43.1	43.1	43.1	43.1
52.5°	39.1	39.1	39.1	39.1	40.4	40.4	40.4	40.4
55°	35.0	36.4	36.4	36.4	37.7	37.7	37.7	37.7
57.5°	33.7	33.7	33.7	35.0	35.0	35.0	36.4	35.0
60°	31.0	31.0	32.3	32.3	32.3	33.7	33.7	33.7
62.5°	28.3	29.6	29.6	29.6	29.6	31.0	31.0	31.0
65°	25.6	26.9	26.9	26.9	28.3	28.3	28.3	28.3
67.5°	22.9	24.2	24.2	25.6	25.6	25.6	25.6	25.6
70°	20.2	21.6	21.6	21.6	22.9	22.9	22.9	22.9
72.5°	18.9	18.9	18.9	20.2	20.2	20.2	21.6	20.2
75°	16.2	17.5	17.5	17.5	17.5	17.5	18.9	18.9
77.5°	13.5	13.5	13.5	13.5	14.8	14.8	14.8	14.8
80°	10.8	10.8	10.8	10.8	12.1	12.1	12.1	12.1
82.5°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
85°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
87.5°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
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)