

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P843301

Luminaire Tested: **LD4C10DE010B2750 EU4C10B30 4LBLWWLI**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843301
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C10DE010B2750 EU4C10B30 4LBLWWLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

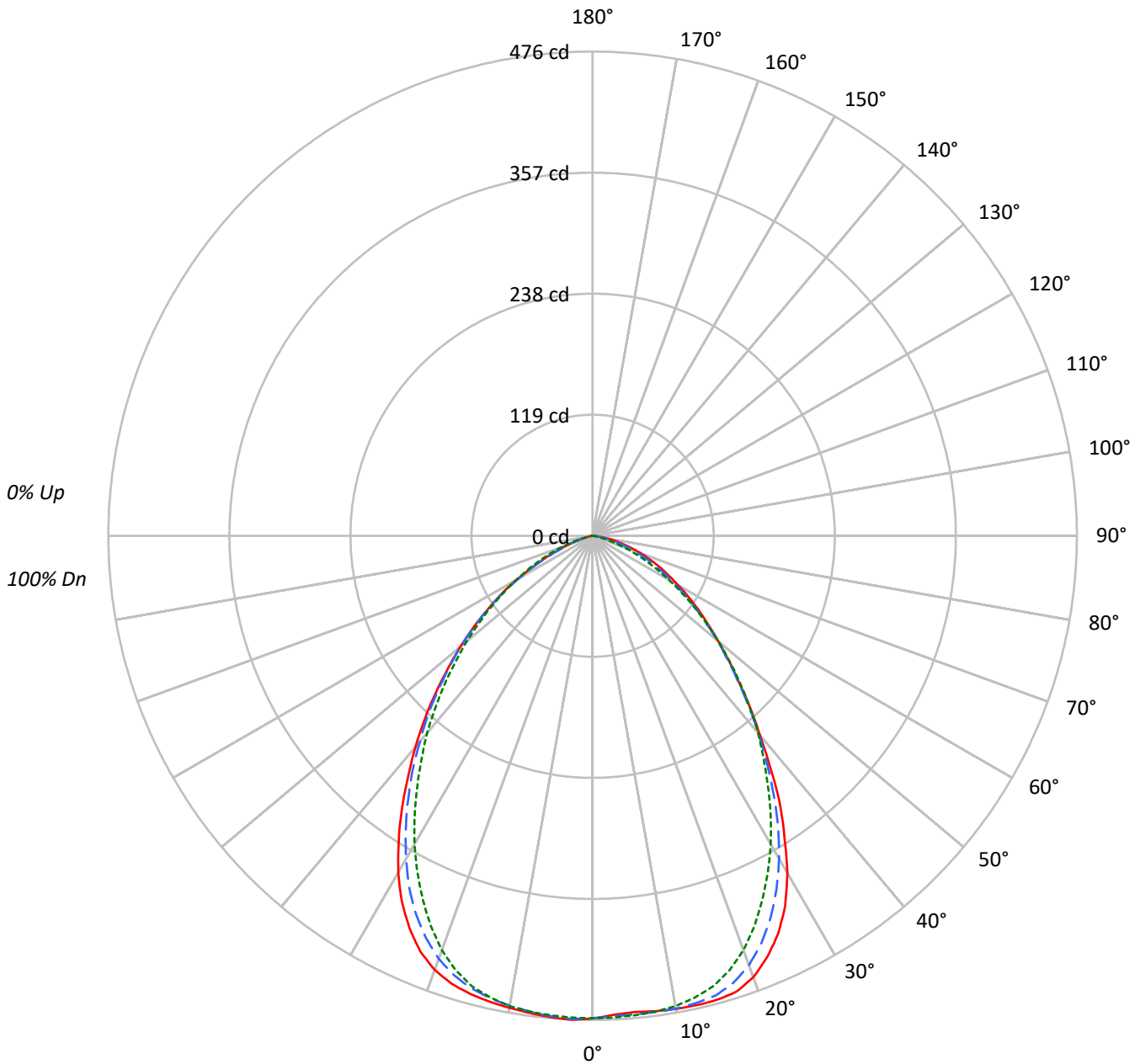
Lumens per Lamp: N/A
Luminaire Lumens: 909.5 lumens
Efficiency: N/A
Efficacy: 68.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 13.3
Input Voltage (V):
Input Current (Ain): 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	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89			89
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78			78
3	95	87	80	74	93	85	79	74	82	77	72	80	75	71	77	73	70	68			68
4	88	78	71	65	86	77	70	65	75	69	64	72	67	63	70	66	62	60			60
5	82	71	63	57	80	70	63	57	68	61	57	66	60	56	64	59	55	54			54
6	76	65	57	51	75	64	56	51	62	56	51	61	55	50	59	54	50	48			48
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	43			43
8	67	55	47	42	65	54	47	42	53	46	41	52	46	41	50	45	41	39			39
9	63	51	43	38	61	50	43	38	49	42	38	48	42	38	47	41	37	36			36
10	59	47	40	35	58	46	39	35	45	39	35	45	39	35	44	38	34	33			33

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	58294	58294	58294
5°	57962	58356	58578
10°	58919	58570	58782
15°	60071	58303	59282
20°	60375	56662	59368
25°	58505	53517	57719
30°	54318	49665	54204
35°	48097	45053	48997
40°	40992	40575	43461
45°	35217	35634	37858
50°	30752	30810	32453
55°	27159	26024	26902
60°	23809	21229	21155
65°	21105	16482	14651
70°	17960	11315	8693
75°	14572	6076	3987
80°	9976	1486	990
85°	2960	423	423



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.1	5.0
10°-20°	130.5	14.4
20°-30°	188.6	20.7
30°-40°	195.0	21.4
40°-50°	161.1	17.7
50°-60°	111.2	12.2
60°-70°	58.2	6.4
70°-80°	18.3	2.0
80°-90°	1.5	0.2
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°	364.2	40.0
0°-40°	559.2	61.5
0°-60°	831.5	91.4
0°-90°	909.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	909.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	474	474	474	474	474	
5°	470	472	473	474	475	45
15°	472	468	458	460	466	133
25°	432	414	395	411	426	197
35°	321	310	300	316	327	199
45°	203	202	205	214	218	158
55°	127	123	122	125	126	114
65°	73	66	57	47	50	72
75°	31	24	13	9	8	33
85°	2	1	0	0	0	4
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°	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5
2.5°	471.4	471.6	471.6	471.9	471.9	471.9	472.1	472.1	472.3	472.4	472.7
5°	470.0	470.0	470.3	470.5	470.9	471.1	471.4	471.6	471.9	472.1	472.3
7.5°	471.4	471.4	471.6	471.7	471.7	471.9	471.9	472.1	472.3	472.4	472.4
10°	472.3	472.3	472.3	472.3	472.4	472.4	472.4	472.3	472.3	472.3	472.1
12.5°	472.7	472.7	472.4	472.3	472.4	472.3	472.3	471.7	471.4	471.1	470.5
15°	472.3	472.3	472.1	471.9	471.7	471.4	471.2	470.3	469.6	468.5	467.8
17.5°	470.0	469.6	469.3	469.0	468.2	467.7	467.3	465.7	464.4	462.7	460.7
20°	461.8	461.4	460.9	460.0	459.1	458.4	457.3	455.0	453.7	451.1	449.2
22.5°	448.4	448.0	448.2	446.6	444.8	443.8	443.0	441.1	439.0	435.6	433.4
25°	431.6	430.6	430.6	428.1	427.2	426.5	425.6	423.3	420.1	417.0	414.2
27.5°	409.9	408.5	407.8	407.4	405.3	403.7	402.4	400.6	398.0	395.3	391.4
30°	382.9	382.7	381.8	380.2	378.6	377.9	376.4	373.5	370.9	369.0	366.5
32.5°	350.9	350.8	350.8	350.8	349.8	349.5	347.4	345.8	343.8	340.8	339.2
35°	320.7	320.5	320.7	318.0	317.3	316.8	316.5	315.5	312.8	311.4	310.0
37.5°	286.5	287.0	286.6	286.0	286.8	285.2	286.5	284.2	283.1	282.7	281.1
40°	255.6	257.1	255.6	255.8	256.7	255.1	255.1	254.8	254.0	253.7	253.3
42.5°	229.3	227.5	228.6	227.7	228.6	228.0	227.2	227.7	227.8	227.2	227.0
45°	202.7	203.1	203.5	203.0	203.0	202.4	203.8	203.0	203.0	203.1	201.9
47.5°	181.2	180.6	181.0	180.6	180.9	180.4	180.9	181.0	180.6	180.6	179.6
50°	160.9	160.5	161.7	160.7	160.7	160.5	160.7	160.3	159.8	159.8	160.1
52.5°	143.2	142.6	142.4	143.2	142.0	142.0	142.1	141.8	141.1	140.8	139.8
55°	126.8	126.7	126.8	126.2	125.8	125.8	124.9	124.5	124.4	123.4	122.9
57.5°	111.5	110.9	111.2	110.9	110.3	110.1	109.4	109.4	108.7	108.0	107.0
60°	96.9	96.9	97.4	96.8	96.2	95.8	95.5	95.2	93.9	92.6	91.6
62.5°	83.9	84.1	83.9	83.3	83.0	82.7	82.3	81.2	80.2	79.4	78.2
65°	72.6	72.3	71.8	71.4	70.5	70.5	69.8	69.3	68.0	66.9	65.8
67.5°	60.7	60.4	60.4	60.4	59.3	59.1	58.8	57.7	56.7	55.2	54.2
70°	50.0	50.4	49.9	49.4	48.9	48.7	48.1	47.1	45.8	44.3	43.5
72.5°	39.9	40.3	39.8	39.6	38.5	38.1	38.0	37.0	35.6	34.7	33.3
75°	30.7	30.8	30.5	30.1	29.4	29.2	28.3	27.6	26.8	25.3	24.0
77.5°	22.1	21.8	21.8	21.0	20.3	20.3	20.1	19.0	17.8	16.7	15.7
80°	14.1	13.9	13.3	13.0	12.5	12.3	12.2	11.2	10.4	9.6	8.9
82.5°	7.1	7.0	6.8	6.6	6.2	5.9	6.0	5.4	5.0	4.2	3.7
85°	2.1	2.3	2.3	2.1	2.0	2.0	2.0	1.8	1.4	1.3	1.1
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



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5
2.5°	472.9	473.0	473.2	473.4	473.4	473.5	473.7	473.9	474.0	474.0	474.2
5°	472.4	472.9	472.9	473.0	473.0	473.0	473.2	473.2	473.2	473.2	473.4
7.5°	472.7	472.7	472.7	472.4	472.4	472.3	472.3	472.3	471.9	471.9	471.9
10°	471.7	471.6	471.4	471.1	470.9	470.6	470.3	470.0	469.6	469.5	469.1
12.5°	470.0	469.3	468.5	467.8	467.5	467.3	466.6	466.1	465.6	464.9	464.6
15°	466.4	465.4	464.1	462.7	462.3	462.0	460.7	459.6	458.9	458.4	457.5
17.5°	459.3	457.1	455.7	453.6	452.7	452.3	450.3	449.3	448.0	447.7	447.0
20°	446.6	444.6	442.0	440.1	439.0	437.9	436.3	434.9	433.4	433.4	432.6
22.5°	430.8	428.2	424.9	422.4	422.2	420.1	418.7	417.0	416.5	415.4	415.4
25°	410.8	408.7	405.0	402.9	401.7	401.2	398.9	396.7	395.7	394.8	395.6
27.5°	388.8	385.5	382.7	380.0	379.2	378.0	375.9	375.0	373.0	372.9	372.7
30°	363.4	360.2	357.4	356.1	354.3	353.5	351.9	350.8	350.1	350.1	349.8
32.5°	336.9	334.0	332.6	330.0	329.0	327.8	326.7	325.6	326.1	325.6	325.9
35°	308.2	307.5	304.8	303.2	303.2	303.0	301.2	300.6	300.2	300.4	301.2
37.5°	280.9	278.8	277.0	275.9	276.9	275.8	275.6	275.6	276.7	275.9	277.4
40°	251.9	251.7	251.0	251.4	251.5	250.3	250.7	250.9	251.5	253.0	253.2
42.5°	226.7	226.4	226.4	226.4	226.1	225.4	226.1	227.3	227.2	228.2	229.1
45°	202.2	201.9	202.5	202.0	203.1	203.5	203.0	203.3	204.3	205.1	206.5
47.5°	179.9	179.9	180.1	180.4	179.4	180.3	180.6	181.4	181.9	182.2	183.0
50°	159.3	159.3	159.0	159.0	159.0	159.5	158.8	159.6	159.8	161.2	162.1
52.5°	140.2	139.3	139.8	139.5	138.8	138.4	138.8	139.0	140.0	140.3	141.4
55°	122.1	122.1	120.6	120.3	120.8	120.6	120.5	120.5	121.0	121.5	122.4
57.5°	106.0	104.9	103.9	103.6	103.1	103.3	103.3	103.1	102.8	103.0	103.1
60°	90.9	90.1	88.5	88.5	88.3	88.2	87.3	87.1	86.2	86.4	85.7
62.5°	77.0	76.6	74.5	73.7	73.7	73.2	72.3	72.1	70.9	70.9	70.2
65°	64.5	63.5	62.2	60.9	60.9	60.2	59.7	58.1	57.2	56.7	55.6
67.5°	53.1	51.5	50.2	49.2	48.4	48.2	47.1	46.0	44.5	43.7	42.1
70°	42.1	40.8	39.6	38.5	37.8	37.0	35.9	34.2	33.1	31.5	30.5
72.5°	31.7	30.7	29.6	28.1	27.3	26.8	25.5	24.0	22.3	21.2	19.8
75°	22.8	21.6	20.1	18.9	18.4	17.8	16.4	15.3	14.1	12.8	11.4
77.5°	14.8	13.3	12.3	10.9	10.7	10.4	8.9	7.8	7.0	6.2	5.4
80°	7.8	7.1	6.2	5.4	5.0	4.4	3.7	3.2	2.6	2.1	1.8
82.5°	3.4	2.9	2.3	2.0	1.8	1.6	1.3	1.1	0.8	0.8	0.7
85°	0.8	0.7	0.7	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3
87.5°	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.2	0.2	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5
2.5°	474.5	474.6	474.8	474.8	475.0	475.1	475.1	475.3	475.5	475.7	475.7
5°	473.5	473.5	473.5	473.7	473.7	473.7	473.7	474.0	474.0	474.2	474.5
7.5°	471.7	471.7	471.7	471.7	471.6	471.7	471.6	471.6	471.9	472.1	472.3
10°	469.0	468.7	468.7	468.5	468.5	468.5	468.7	469.0	469.1	469.3	469.8
12.5°	464.4	464.3	464.3	464.1	464.1	464.3	464.4	464.8	465.6	465.9	466.6
15°	457.3	457.1	457.3	457.5	457.8	458.4	458.9	459.4	460.5	461.4	462.3
17.5°	447.0	447.2	447.4	447.7	448.2	449.0	450.3	451.8	453.1	454.5	455.9
20°	432.8	433.4	433.6	434.9	435.2	436.8	438.4	440.6	442.5	444.3	446.3
22.5°	415.7	416.2	416.9	418.3	419.2	421.4	423.3	425.8	427.9	430.2	433.1
25°	396.2	396.4	398.5	398.5	400.6	402.4	404.8	407.4	410.7	413.6	415.7
27.5°	374.1	375.0	376.6	377.4	379.0	381.8	383.7	387.0	390.2	392.8	394.9
30°	350.9	351.7	354.3	354.7	356.0	358.4	361.1	364.1	366.7	369.6	371.7
32.5°	326.6	328.5	330.1	331.4	331.7	335.5	336.9	339.1	341.9	344.9	346.9
35°	302.9	303.8	306.1	306.8	307.9	310.0	312.8	314.6	316.0	318.0	320.4
37.5°	277.7	280.4	280.9	283.1	283.4	285.5	286.8	288.9	290.7	292.5	292.9
40°	254.4	255.3	257.2	257.7	258.2	260.8	262.6	263.1	264.0	265.7	267.8
42.5°	230.7	231.6	233.7	233.2	234.8	236.1	236.9	239.1	240.0	240.5	240.5
45°	207.4	207.7	209.2	209.8	210.8	211.4	213.1	214.2	214.5	216.1	216.6
47.5°	185.1	185.5	186.6	187.7	187.4	188.3	190.1	190.6	190.8	191.9	192.4
50°	163.2	164.0	165.5	165.2	166.3	166.8	168.4	168.7	168.7	168.9	169.1
52.5°	142.7	143.4	143.7	144.2	144.7	145.5	146.3	146.0	146.6	147.3	146.8
55°	122.4	122.9	123.8	124.2	124.2	124.4	124.0	125.6	124.9	124.7	124.9
57.5°	103.9	103.1	103.0	103.9	104.2	104.1	103.5	104.2	104.2	103.9	103.3
60°	85.9	85.4	85.1	85.4	84.6	84.1	84.4	84.1	83.2	82.8	83.0
62.5°	69.5	69.0	67.5	67.5	67.2	66.9	65.6	65.8	65.0	64.0	64.3
65°	54.4	52.9	52.2	52.0	50.8	49.7	49.4	48.1	47.1	46.9	47.1
67.5°	40.8	39.2	38.0	37.4	36.7	35.9	34.6	33.5	33.8	33.6	34.4
70°	28.3	27.3	26.0	25.2	25.5	24.4	23.7	23.7	23.9	24.0	24.4
72.5°	18.9	17.5	16.9	16.4	16.1	15.3	15.7	15.7	15.5	15.7	15.3
75°	10.7	9.9	9.4	9.3	8.9	8.9	8.9	8.9	8.8	8.6	8.6
77.5°	4.8	4.4	4.2	4.1	4.1	4.1	3.9	3.7	3.7	3.7	3.6
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
82.5°	0.7	0.7	0.8	0.8	0.8	0.7	0.8	0.8	0.7	0.7	0.8
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
87.5°	0.2	0.2	0.2	0.0	0.2	0.2	0.2	0.2	0.0	0.2	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: P843301

CATALOG NUMBER: LD4C10DE010B2750 EU4C10B30 4LBLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	474.5	474.5	474.5	474.5	474.5	474.5	474.5	474.5
2.5°	475.8	476.0	476.0	476.0	476.3	476.3	476.3	476.3
5°	474.6	474.8	474.8	474.8	475.0	475.0	475.0	475.0
7.5°	472.4	472.7	472.7	472.9	472.9	473.0	473.0	473.2
10°	470.0	470.3	470.5	470.6	470.9	471.1	471.1	471.2
12.5°	467.3	467.7	467.8	468.2	468.5	468.7	469.0	469.1
15°	463.3	464.1	464.4	464.6	465.4	465.7	465.9	466.1
17.5°	457.1	458.6	459.1	459.4	460.2	460.9	461.4	461.6
20°	448.2	449.8	450.6	451.4	452.6	453.4	453.7	454.1
22.5°	435.7	437.5	438.6	439.7	440.6	441.5	442.9	442.4
25°	418.0	420.9	422.2	422.7	424.7	425.8	426.5	425.8
27.5°	398.0	399.8	400.8	402.1	403.5	404.5	405.0	406.0
30°	374.0	376.9	376.8	378.0	379.8	380.9	381.3	382.1
32.5°	349.0	350.4	351.5	351.3	352.1	354.0	353.2	354.8
35°	322.5	322.7	324.4	324.3	325.6	325.6	325.6	326.7
37.5°	294.1	296.2	295.4	297.5	296.8	297.3	297.3	297.7
40°	268.3	269.1	269.1	269.7	270.2	269.7	270.1	271.0
42.5°	241.6	242.3	242.5	242.1	242.6	244.2	243.0	244.1
45°	216.6	217.1	217.9	217.3	218.2	217.7	218.2	217.9
47.5°	193.1	192.9	192.8	194.2	192.9	193.1	193.9	192.6
50°	169.1	170.2	169.4	170.0	170.3	170.3	169.8	169.8
52.5°	147.6	147.5	147.0	147.5	147.1	147.3	147.6	147.3
55°	125.6	126.3	126.0	125.8	126.0	126.0	127.0	125.6
57.5°	103.9	103.5	104.1	105.3	104.1	104.9	105.4	105.7
60°	83.2	83.2	84.3	83.8	84.8	85.7	86.4	86.1
62.5°	63.5	64.3	64.6	64.8	65.9	66.6	66.6	66.4
65°	47.1	48.2	48.2	49.0	49.4	49.4	49.7	50.4
67.5°	34.7	34.7	34.9	35.3	35.1	35.1	35.4	35.6
70°	24.2	23.9	24.4	24.2	24.2	24.0	24.2	24.2
72.5°	15.3	15.3	15.5	15.3	14.9	15.1	15.1	15.5
75°	8.1	8.6	8.1	8.1	8.4	8.0	8.1	8.4
77.5°	3.4	3.4	3.4	3.4	3.4	3.2	3.2	3.2
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.4	1.4
82.5°	0.7	0.8	0.7	0.8	0.7	0.7	0.7	0.7
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
87.5°	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.2
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)