

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: P879370

Luminaire Tested: **LD4C15D010 EU4159030 4LBDWWH**

Issue Date: 10/1/2024

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P879370
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C15D010 EU4159030 4LBLDWWH
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

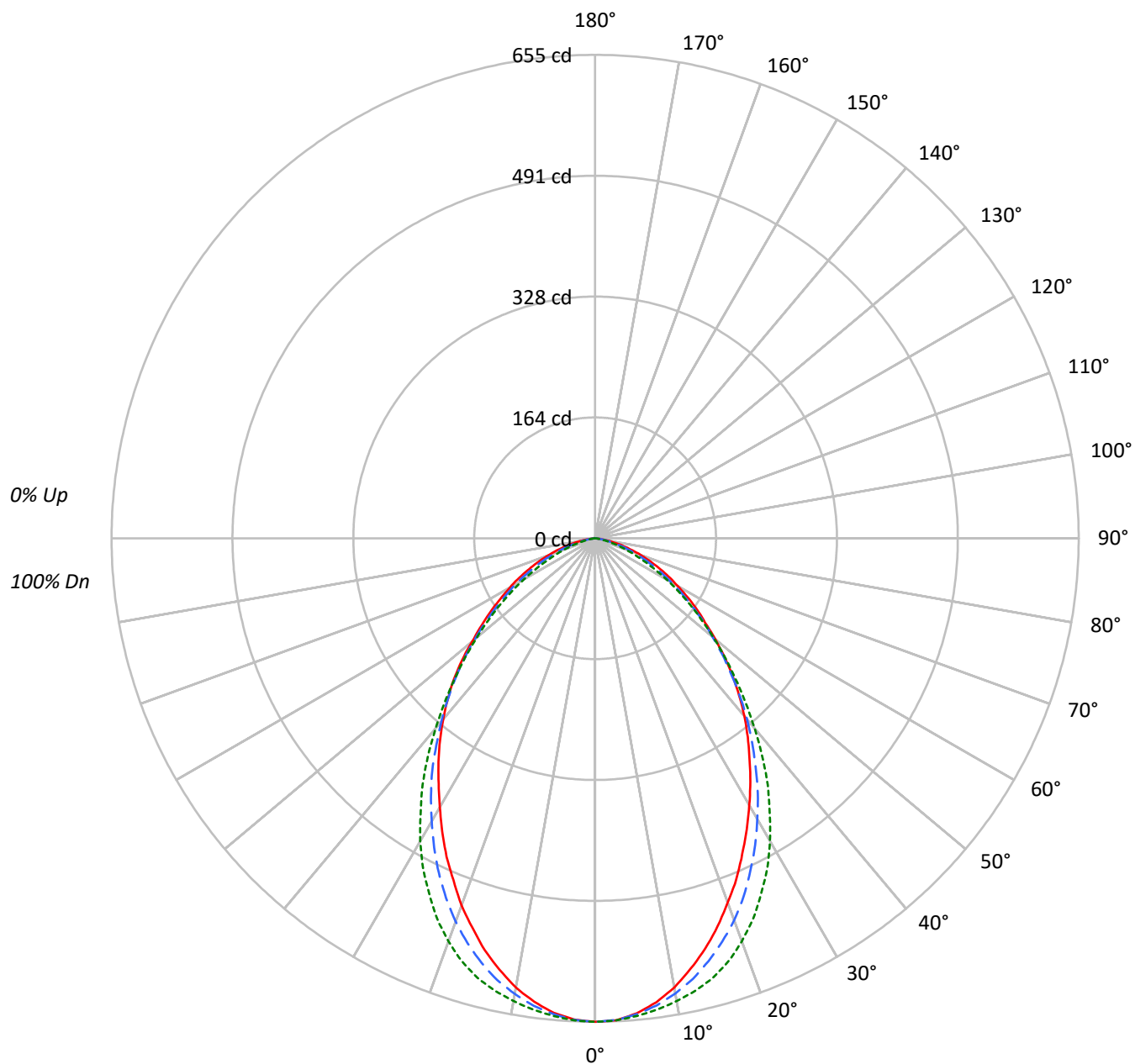
Lumens per Lamp: N/A
Luminaire Lumens: 1172.0 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 15.8
Input Voltage (V): NR
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
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	111	107	104	100	108	105	102	99		101	98	96		97	95	93		93	92	90
2	103	96	90	85	100	94	89	84		90	86	82		87	84	80		84	81	79
3	95	86	79	73	92	84	78	73		81	76	71		79	74	70		76	72	69
4	88	77	70	64	86	76	69	63		74	68	63		71	66	62		69	65	61
5	81	70	62	56	80	69	62	56		67	61	56		65	59	55		63	58	54
6	76	64	56	50	74	63	56	50		61	55	50		60	54	49		58	53	49
7	71	59	51	45	69	58	50	45		56	50	45		55	49	44		54	48	44
8	66	54	46	41	65	53	46	41		52	45	41		51	45	40		50	44	40
9	62	50	42	37	61	49	42	37		48	42	37		47	41	37		46	41	37
10	59	46	39	34	57	46	39	34		45	39	34		44	38	34		43	38	34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	80494	80494	80494
5°	79679	80123	79593
10°	77082	79427	77120
15°	73234	78411	73489
20°	68650	75946	69213
25°	63927	72060	64524
30°	59226	67213	59666
35°	54636	61100	55476
40°	50405	53837	51320
45°	45659	46649	47032
50°	40481	39964	41493
55°	36069	33649	36905
60°	31573	27323	32753
65°	27645	21134	28604
70°	23240	15481	24461
75°	18180	10063	19177
80°	11886	5306	13088
85°	4088	2396	5497



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.2	5.2
10°-20°	167.1	14.3
20°-30°	229.9	19.6
30°-40°	239.8	20.5
40°-50°	205.2	17.5
50°-60°	146.7	12.5
60°-70°	85.1	7.3
70°-80°	32.8	2.8
80°-90°	4.2	0.4
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°	458.2	39.1
0°-40°	697.9	59.6
0°-60°	1049.8	89.6
0°-90°	1172.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1172.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	655	655	655	655	655	
5°	646	647	650	647	645	61
15°	576	593	616	595	578	161
25°	472	498	532	501	476	217
35°	364	379	407	385	370	228
45°	263	261	268	267	271	203
55°	168	160	157	164	172	151
65°	95	84	73	87	98	95
75°	38	29	21	30	40	41
85°	3	2	2	2	4	6
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°	655.2	655.2	655.2	655.2	655.2	655.2	655.2	655.2	655.2	655.2	655.2
2.5°	653.6	653.1	653.3	653.3	653.3	653.1	653.6	653.6	653.3	653.3	653.3
5°	646.1	645.6	645.9	646.1	646.1	646.1	646.3	646.6	646.8	647.1	647.3
7.5°	634.1	633.3	634.1	635.0	635.0	635.3	635.5	635.8	636.5	637.7	638.4
10°	617.9	617.9	618.2	618.9	620.1	619.9	620.6	621.8	623.2	624.9	626.1
12.5°	597.5	598.0	598.7	599.4	600.6	601.3	602.5	604.0	606.4	608.8	611.4
15°	575.8	576.1	576.3	578.0	579.2	580.9	581.9	584.7	586.9	590.3	593.2
17.5°	551.5	551.3	552.0	553.5	556.3	557.1	558.3	561.4	564.5	569.1	572.9
20°	525.1	526.5	527.5	529.4	531.1	533.0	534.0	537.8	541.4	545.8	550.8
22.5°	500.0	498.8	500.5	502.7	504.1	505.6	507.3	511.3	515.2	520.5	525.5
25°	471.6	472.4	473.6	475.3	477.2	479.1	481.0	485.4	487.5	493.1	497.6
27.5°	444.7	445.9	446.4	448.5	450.2	451.7	452.6	457.7	459.6	464.4	469.0
30°	417.5	418.7	418.7	421.1	422.3	423.8	426.2	429.5	432.4	435.8	439.2
32.5°	391.3	391.3	392.2	394.4	395.6	397.3	398.0	400.4	403.3	406.7	410.3
35°	364.3	365.0	366.0	366.0	368.2	369.1	370.1	372.5	374.4	375.9	378.8
37.5°	339.5	339.5	338.8	340.0	341.5	341.2	342.7	343.9	345.1	346.8	349.2
40°	314.3	314.3	313.3	314.0	315.0	314.7	314.3	315.5	316.4	317.6	320.0
42.5°	288.5	288.0	287.8	287.8	288.3	287.8	288.3	288.5	288.5	288.5	290.0
45°	262.8	264.0	262.5	262.0	261.3	260.6	260.4	260.6	261.6	260.4	260.6
47.5°	237.5	238.0	237.0	236.3	235.6	235.1	235.6	234.1	234.6	234.9	233.9
50°	211.8	210.8	210.8	210.1	210.3	210.1	209.6	209.1	209.1	207.9	207.2
52.5°	187.9	188.4	188.9	187.2	187.5	186.3	186.5	185.3	185.3	183.8	184.3
55°	168.4	167.7	167.7	167.0	166.8	165.6	165.3	164.6	162.9	161.9	160.0
57.5°	148.2	148.0	147.0	147.3	145.8	145.6	145.1	143.9	142.7	141.5	139.3
60°	128.5	128.7	128.7	128.3	127.5	126.3	126.6	124.9	123.2	121.0	119.1
62.5°	112.1	111.4	111.2	110.7	109.2	109.2	108.0	106.8	105.2	103.0	101.3
65°	95.1	95.3	94.6	93.8	92.4	92.2	91.2	90.2	88.6	86.4	84.0
67.5°	79.6	79.2	78.9	78.2	76.8	76.5	75.8	73.6	72.2	70.0	68.1
70°	64.7	64.2	64.5	63.3	61.8	61.1	60.9	59.2	57.0	55.3	53.4
72.5°	50.8	50.8	50.5	49.3	48.6	48.1	47.2	45.2	44.0	42.1	40.7
75°	38.3	38.0	37.5	36.8	35.9	35.4	34.9	33.7	32.0	29.8	28.6
77.5°	26.5	26.7	26.2	26.0	24.8	24.1	23.8	23.1	21.7	20.2	19.0
80°	16.8	16.6	16.4	15.9	15.6	15.4	14.7	14.2	12.8	12.0	11.3
82.5°	9.1	8.7	8.7	8.4	7.9	7.7	7.5	7.0	6.7	6.3	5.8
85°	2.9	3.1	2.9	2.9	2.9	2.6	2.6	2.6	2.4	2.4	2.2
87.5°	0.2	0.5	0.2	0.2	0.5	0.2	0.2	0.5	0.2	0.2	0.5
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°	655.2	655.2	655.2	655.2	655.2	655.2	655.2	655.2	655.2	655.2	655.2
2.5°	653.3	653.6	653.6	653.8	653.8	653.8	653.8	653.8	653.8	653.8	653.8
5°	648.0	648.0	648.5	649.0	649.0	649.0	649.2	649.7	649.7	649.7	649.5
7.5°	639.4	640.3	641.3	642.3	642.5	642.7	643.2	644.2	644.2	644.2	644.2
10°	628.1	630.2	631.4	632.9	633.6	634.1	635.5	635.8	636.5	636.7	636.5
12.5°	613.6	616.5	619.1	621.6	622.5	623.5	624.9	626.4	627.1	627.8	627.6
15°	597.5	600.6	604.7	607.4	609.3	610.7	612.9	614.8	616.0	616.5	616.5
17.5°	578.0	581.9	586.2	590.5	591.7	594.1	596.5	599.2	600.6	600.9	600.6
20°	556.3	560.7	564.3	568.6	571.3	572.5	575.8	579.2	580.6	580.9	580.6
22.5°	530.6	534.7	539.5	544.1	546.2	548.4	552.0	555.4	557.3	558.8	557.3
25°	502.0	507.7	512.3	516.2	519.3	521.5	526.0	528.7	531.8	531.6	531.8
27.5°	473.8	478.6	483.7	488.2	490.2	492.6	496.2	500.5	503.2	504.8	504.6
30°	444.9	448.8	453.1	457.2	460.3	462.3	467.6	469.5	472.8	473.8	473.1
32.5°	414.4	417.0	421.3	426.9	428.1	430.0	433.4	438.2	439.4	439.9	440.1
35°	381.9	386.9	390.5	393.9	394.9	396.6	400.4	404.0	405.2	407.4	406.4
37.5°	351.8	354.7	356.4	359.7	362.6	364.1	366.0	368.4	370.8	371.8	371.5
40°	321.7	323.2	324.6	328.2	328.5	328.5	331.4	334.7	334.7	335.7	335.7
42.5°	290.9	291.2	293.1	295.0	295.5	296.0	298.9	299.3	300.8	301.5	302.5
45°	261.1	262.5	263.7	264.0	265.2	265.4	266.1	266.9	269.0	268.5	269.0
47.5°	233.9	234.6	235.3	235.3	236.1	235.8	237.0	236.3	237.7	238.2	238.9
50°	207.2	208.4	207.7	208.1	207.9	208.6	208.1	208.1	208.1	209.1	209.8
52.5°	182.6	182.9	182.2	182.4	182.4	181.9	182.4	182.2	181.9	181.9	182.2
55°	160.0	159.1	158.6	157.6	156.4	157.9	157.1	156.7	157.6	157.1	157.6
57.5°	138.1	136.9	136.0	135.5	133.8	134.8	133.8	133.3	133.3	133.3	134.5
60°	117.4	116.2	115.0	113.6	113.3	112.9	112.4	111.2	111.4	111.2	111.7
62.5°	99.4	97.0	95.3	94.1	93.8	93.1	92.4	91.2	91.4	91.4	91.7
65°	82.8	80.1	77.7	76.0	76.0	74.8	73.6	73.6	72.2	72.7	72.9
67.5°	66.2	64.0	61.6	60.4	59.7	58.7	58.0	57.5	56.8	56.8	57.3
70°	51.3	49.1	47.9	46.0	45.7	45.0	44.0	43.3	43.1	43.1	42.8
72.5°	38.7	36.8	35.4	34.2	33.4	32.7	31.8	31.5	31.0	31.0	31.5
75°	27.0	25.7	24.5	23.3	22.9	22.6	21.9	21.4	21.4	21.2	21.4
77.5°	18.0	16.8	15.6	15.2	14.7	14.2	14.0	13.7	13.0	13.0	13.0
80°	10.3	9.9	9.4	8.7	8.7	8.4	7.9	7.7	7.5	7.5	7.5
82.5°	5.3	5.1	4.6	4.3	4.3	4.3	4.1	4.1	3.9	3.9	3.9
85°	2.2	1.9	1.7	1.7	1.7	1.7	1.7	1.7	1.9	1.7	1.9
87.5°	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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°	655.2	655.2	655.2	655.2	655.2	655.2	655.2	655.2	655.2	655.2	655.2
2.5°	653.8	653.6	653.6	653.6	653.6	653.6	653.3	653.3	653.1	653.1	653.1
5°	649.7	649.5	649.2	649.0	648.7	648.5	648.3	648.0	647.3	647.1	646.6
7.5°	643.9	643.5	642.7	642.5	642.0	641.3	640.3	639.8	638.9	637.7	637.2
10°	636.2	635.3	634.5	633.3	633.1	632.1	629.7	628.5	626.8	625.4	623.7
12.5°	626.8	625.9	624.2	622.5	621.6	619.4	617.2	615.3	613.1	610.0	607.6
15°	615.3	613.9	610.5	610.0	608.6	605.2	602.3	598.7	595.3	592.0	589.1
17.5°	599.9	596.8	595.1	592.9	591.2	586.9	583.8	579.7	575.1	571.3	567.2
20°	579.7	576.3	573.4	572.2	570.1	566.2	562.4	557.3	552.7	547.9	544.3
22.5°	555.6	553.5	549.1	547.7	545.0	541.2	536.6	531.8	527.5	522.2	517.4
25°	529.9	526.7	523.4	520.5	518.6	515.0	509.2	505.6	500.8	495.0	491.4
27.5°	502.4	498.8	494.0	492.1	490.4	485.6	480.8	476.2	472.4	467.3	464.2
30°	470.7	468.0	464.9	462.5	460.1	456.2	451.9	446.6	442.5	440.1	435.8
32.5°	438.4	436.3	432.2	431.0	428.3	425.2	422.1	418.2	413.9	410.3	406.9
35°	404.0	401.9	399.0	396.8	395.8	393.7	390.3	386.9	384.8	380.7	379.0
37.5°	369.6	368.9	366.0	363.8	363.1	360.5	358.8	356.4	353.2	352.3	350.4
40°	334.2	333.8	332.1	331.8	330.4	329.7	327.3	325.3	323.9	323.2	322.0
42.5°	301.8	301.3	299.8	300.1	298.6	298.1	297.9	296.2	295.0	293.6	293.8
45°	269.7	269.3	268.3	267.8	268.5	268.3	267.8	267.1	267.1	267.3	266.6
47.5°	238.9	239.4	238.5	238.9	238.9	238.2	238.2	239.2	239.4	239.9	240.4
50°	209.8	211.3	210.8	211.5	211.8	212.0	211.3	212.5	212.2	214.4	213.9
52.5°	183.4	183.6	184.6	184.8	185.0	185.3	186.5	187.5	187.7	188.7	190.3
55°	157.9	158.1	160.0	160.0	161.2	161.5	163.1	163.6	164.4	167.0	167.5
57.5°	133.8	135.2	136.2	136.7	137.4	138.6	139.6	141.7	142.9	144.6	146.3
60°	112.1	113.8	115.0	115.5	116.5	117.9	119.1	121.5	123.7	125.6	126.8
62.5°	92.2	93.6	94.6	96.3	96.3	97.5	100.3	101.8	104.2	105.9	108.0
65°	74.4	75.3	77.0	77.0	78.0	79.9	82.3	84.5	86.9	89.3	91.4
67.5°	58.2	59.0	59.9	60.9	61.4	63.8	65.7	68.8	71.0	72.7	75.3
70°	44.0	44.5	45.7	46.7	47.4	49.1	51.3	53.4	55.6	57.5	60.2
72.5°	31.5	32.5	33.7	34.4	34.9	36.1	38.3	40.4	42.4	44.3	45.7
75°	21.7	22.4	22.9	23.6	24.3	25.3	26.7	28.2	30.3	32.2	33.9
77.5°	13.5	14.2	14.9	15.2	15.4	16.4	17.3	18.8	20.2	21.7	22.9
80°	7.9	8.2	8.4	8.7	9.1	9.9	10.3	11.3	12.3	13.2	14.4
82.5°	4.1	4.3	4.6	4.6	4.6	4.8	5.5	6.0	6.3	6.7	7.5
85°	1.7	1.7	1.7	1.9	1.9	2.2	2.2	2.4	2.4	2.6	2.9
87.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
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):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	655.2	655.2	655.2	655.2	655.2	655.2	655.2	655.2
2.5°	652.8	652.8	652.8	652.6	652.8	652.8	652.8	652.6
5°	646.6	646.1	646.1	645.9	645.6	645.6	645.9	645.4
7.5°	636.2	635.5	635.0	635.0	634.8	634.5	634.5	633.3
10°	622.8	621.3	621.3	620.8	618.9	618.7	618.2	618.2
12.5°	605.9	604.2	603.3	602.1	600.9	599.9	599.7	598.7
15°	585.9	583.8	582.1	581.6	579.7	578.2	578.2	577.8
17.5°	564.3	560.9	559.7	558.5	555.9	555.6	555.1	553.0
20°	539.7	536.6	534.9	533.7	532.0	529.6	529.2	529.4
22.5°	514.0	509.7	508.2	507.0	505.3	503.2	503.2	501.5
25°	487.3	483.4	482.0	480.5	477.9	476.9	475.7	476.0
27.5°	460.1	456.5	455.3	452.6	450.9	449.7	448.5	448.5
30°	431.7	429.8	427.8	427.6	424.2	422.8	421.6	420.6
32.5°	404.3	401.9	400.9	399.9	398.2	396.3	396.1	394.4
35°	377.3	374.9	373.7	372.7	370.8	370.1	369.4	369.9
37.5°	348.9	348.4	347.7	346.5	345.3	345.1	344.1	345.3
40°	321.0	320.8	319.8	320.0	320.0	319.6	320.0	320.0
42.5°	294.1	294.1	293.1	293.6	293.8	294.3	295.0	295.5
45°	267.8	267.6	267.8	268.3	267.8	269.0	270.0	270.7
47.5°	240.9	241.1	242.1	242.3	242.8	244.5	244.5	244.5
50°	215.1	216.3	215.8	217.3	217.1	218.0	217.1	217.1
52.5°	190.6	191.8	192.0	192.3	193.7	194.0	194.0	193.7
55°	168.7	170.4	169.6	170.8	171.6	172.1	172.8	172.3
57.5°	148.5	149.2	149.9	150.2	151.1	151.6	152.1	151.6
60°	128.5	129.9	131.1	131.4	131.9	132.3	132.6	133.3
62.5°	109.7	112.1	112.6	112.9	114.1	114.8	115.3	115.7
65°	93.1	94.8	96.0	96.7	97.7	97.7	98.4	98.4
67.5°	77.0	78.7	79.4	79.9	81.3	81.6	82.8	82.8
70°	62.3	63.5	64.0	64.7	66.2	67.1	67.6	68.1
72.5°	48.1	49.6	50.3	51.3	52.2	52.9	53.2	53.9
75°	35.1	37.3	37.5	38.5	39.2	40.2	40.7	40.4
77.5°	24.5	25.3	26.2	26.7	27.4	28.2	28.9	28.9
80°	15.2	16.1	16.4	16.6	17.6	18.0	18.5	18.5
82.5°	7.9	8.4	8.9	9.1	9.6	9.6	9.9	10.1
85°	3.1	3.4	3.4	3.4	3.6	3.9	3.9	3.9
87.5°	0.5	0.7	0.5	0.5	0.7	0.7	0.7	0.7
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)