

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: P879368

Luminaire Tested: **LD4C15D010 EU4159027 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: P879368
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 EU4159027 4LBLDWWH
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBLDWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

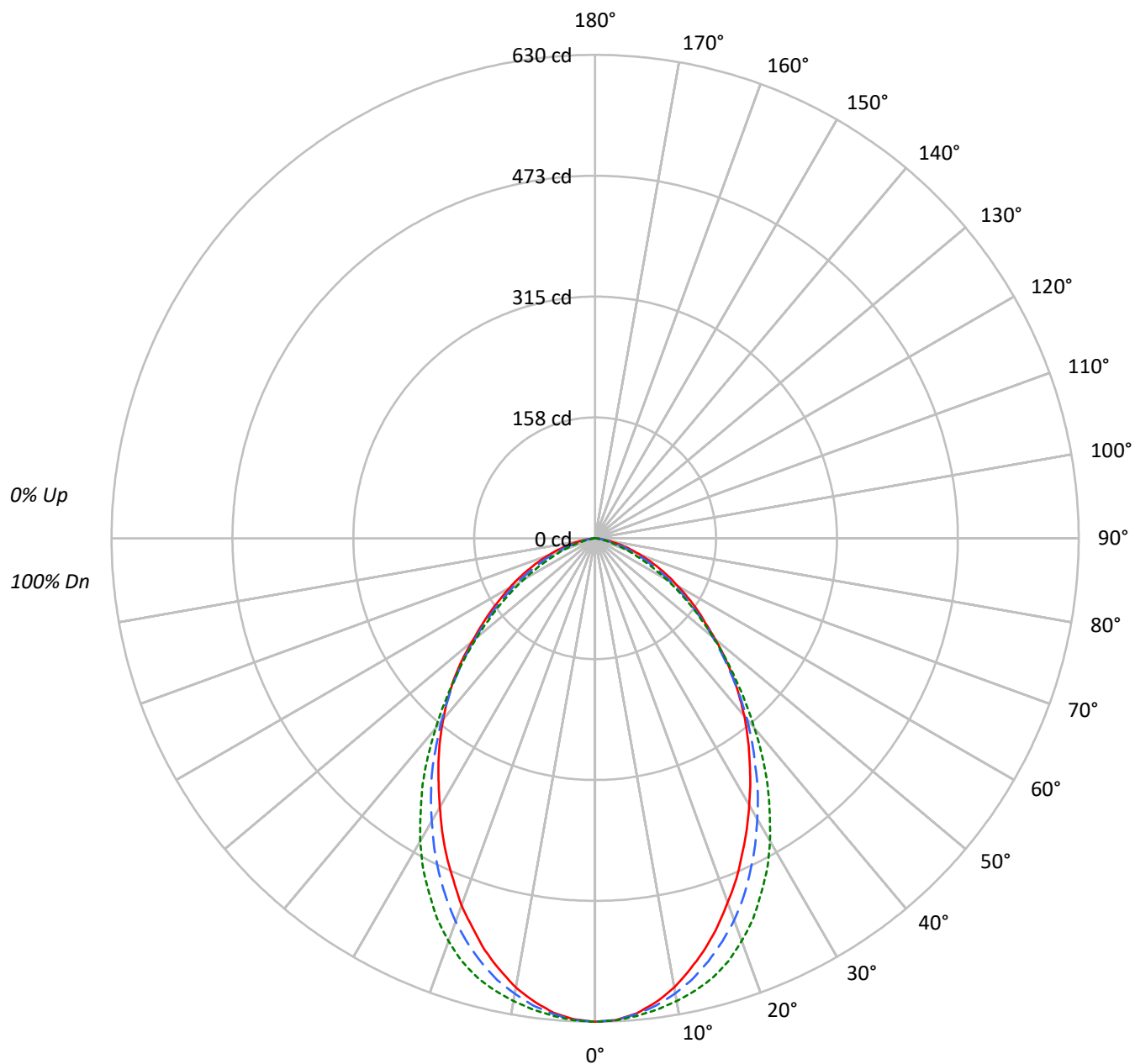
Lumens per Lamp: N/A
Luminaire Lumens: 1127.0 lumens
Efficiency: N/A
Efficacy: 71.3 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77		
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67		
4	88	77	70	64	86	76	69	63	74	68	63	71	66	62	69	65	61	59		
5	81	70	62	56	80	69	62	56	67	61	56	65	59	55	63	58	54	52		
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47		
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42		
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38		
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35		
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	77410	77410	77410
5°	76620	77052	76534
10°	74126	76384	74163
15°	70424	75397	70665
20°	66010	73030	66559
25°	61474	69282	62043
30°	56956	64631	57382
35°	52537	58746	53347
40°	48465	51769	49363
45°	43904	44860	45225
50°	38913	38435	39888
55°	34699	32364	35491
60°	30369	26266	31500
65°	26570	20320	27500
70°	22342	14871	23528
75°	17468	9683	18465
80°	11461	5094	12593
85°	3947	2255	5215



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.8	5.2
10°-20°	160.7	14.3
20°-30°	221.0	19.6
30°-40°	230.6	20.5
40°-50°	197.3	17.5
50°-60°	141.1	12.5
60°-70°	81.9	7.3
70°-80°	31.6	2.8
80°-90°	4.0	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°	440.6	39.1
0°-40°	671.2	59.6
0°-60°	1009.5	89.6
0°-90°	1127.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1127.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	630	630	630	630	630	
5°	621	622	625	622	621	58
15°	554	570	593	572	556	155
25°	454	478	511	482	458	209
35°	350	364	392	370	356	219
45°	253	251	258	257	260	195
55°	162	154	151	158	166	145
65°	91	81	70	84	95	91
75°	37	28	20	29	39	40
85°	3	2	2	2	4	5
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°	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1
2.5°	628.5	628.0	628.2	628.2	628.2	628.0	628.5	628.5	628.2	628.2	628.2
5°	621.3	620.8	621.1	621.3	621.3	621.3	621.5	621.8	622.0	622.2	622.4
7.5°	609.7	609.0	609.7	610.6	610.6	610.9	611.1	611.3	612.0	613.2	613.9
10°	594.2	594.2	594.5	595.1	596.3	596.1	596.8	597.9	599.3	600.9	602.1
12.5°	574.6	575.0	575.7	576.4	577.6	578.3	579.4	580.8	583.1	585.4	588.0
15°	553.7	554.0	554.2	555.8	557.0	558.6	559.5	562.3	564.4	567.6	570.4
17.5°	530.4	530.1	530.8	532.2	535.0	535.7	536.8	539.8	542.9	547.2	550.9
20°	504.9	506.3	507.2	509.1	510.7	512.5	513.5	517.2	520.6	524.8	529.7
22.5°	480.8	479.7	481.3	483.4	484.8	486.2	487.8	491.7	495.4	500.5	505.4
25°	453.5	454.2	455.4	457.0	458.9	460.7	462.6	466.7	468.8	474.1	478.5
27.5°	427.6	428.8	429.2	431.3	432.9	434.3	435.3	440.1	442.0	446.6	451.0
30°	401.5	402.6	402.6	404.9	406.1	407.5	409.8	413.0	415.8	419.1	422.3
32.5°	376.2	376.2	377.2	379.3	380.4	382.0	382.7	385.0	387.8	391.1	394.5
35°	350.3	351.0	352.0	352.0	354.0	355.0	355.9	358.2	360.0	361.4	364.2
37.5°	326.5	326.5	325.8	327.0	328.3	328.1	329.5	330.7	331.8	333.4	335.8
40°	302.2	302.2	301.3	302.0	302.9	302.7	302.2	303.4	304.3	305.4	307.8
42.5°	277.4	277.0	276.7	276.7	277.2	276.7	277.2	277.4	277.4	277.4	278.8
45°	252.7	253.8	252.5	252.0	251.3	250.6	250.4	250.6	251.5	250.4	250.6
47.5°	228.4	228.8	227.9	227.2	226.5	226.1	226.5	225.1	225.6	225.8	224.9
50°	203.6	202.7	202.7	202.0	202.2	202.0	201.5	201.1	201.1	199.9	199.2
52.5°	180.7	181.2	181.6	180.0	180.3	179.1	179.3	178.2	178.2	176.8	177.2
55°	162.0	161.3	161.3	160.6	160.4	159.2	159.0	158.3	156.7	155.7	153.9
57.5°	142.5	142.3	141.4	141.6	140.2	140.0	139.5	138.4	137.2	136.1	134.0
60°	123.6	123.8	123.8	123.3	122.6	121.5	121.7	120.1	118.5	116.4	114.5
62.5°	107.8	107.1	106.9	106.4	105.1	105.1	103.9	102.7	101.1	99.0	97.4
65°	91.4	91.6	90.9	90.2	88.9	88.6	87.7	86.8	85.2	83.1	80.8
67.5°	76.6	76.1	75.9	75.2	73.8	73.6	72.9	70.8	69.4	67.3	65.5
70°	62.2	61.8	62.0	60.9	59.5	58.8	58.5	56.9	54.8	53.2	51.4
72.5°	48.8	48.8	48.6	47.4	46.7	46.3	45.4	43.5	42.3	40.5	39.1
75°	36.8	36.6	36.1	35.4	34.5	34.0	33.6	32.4	30.8	28.7	27.5
77.5°	25.5	25.7	25.2	25.0	23.8	23.1	22.9	22.2	20.8	19.4	18.3
80°	16.2	16.0	15.7	15.3	15.0	14.8	14.1	13.7	12.3	11.6	10.9
82.5°	8.8	8.3	8.3	8.1	7.6	7.4	7.2	6.7	6.5	6.0	5.6
85°	2.8	3.0	2.8	2.8	2.8	2.5	2.5	2.5	2.3	2.3	2.1
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°	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1
2.5°	628.2	628.5	628.5	628.7	628.7	628.7	628.7	628.7	628.7	628.7	628.7
5°	623.1	623.1	623.6	624.1	624.1	624.1	624.3	624.8	624.8	624.8	624.5
7.5°	614.8	615.7	616.7	617.6	617.8	618.1	618.5	619.4	619.4	619.4	619.4
10°	603.9	606.0	607.2	608.6	609.3	609.7	611.1	611.3	612.0	612.3	612.0
12.5°	590.1	592.8	595.4	597.7	598.6	599.5	600.9	602.3	603.0	603.7	603.5
15°	574.6	577.6	581.5	584.0	585.9	587.3	589.4	591.2	592.4	592.8	592.8
17.5°	555.8	559.5	563.7	567.8	569.0	571.3	573.6	576.2	577.6	577.8	577.6
20°	535.0	539.1	542.6	546.8	549.3	550.5	553.7	557.0	558.4	558.6	558.4
22.5°	510.2	514.2	518.8	523.2	525.3	527.3	530.8	534.1	535.9	537.3	535.9
25°	482.7	488.2	492.6	496.3	499.3	501.4	505.8	508.4	511.4	511.1	511.4
27.5°	455.6	460.2	465.1	469.5	471.3	473.7	477.1	481.3	483.8	485.5	485.2
30°	427.8	431.5	435.7	439.6	442.7	444.5	449.6	451.4	454.7	455.6	454.9
32.5°	398.5	401.0	405.2	410.5	411.6	413.5	416.7	421.4	422.5	423.0	423.2
35°	367.2	372.1	375.6	378.8	379.7	381.3	385.0	388.5	389.7	391.7	390.8
37.5°	338.3	341.1	342.7	345.9	348.7	350.1	352.0	354.3	356.6	357.5	357.3
40°	309.4	310.8	312.2	315.6	315.9	315.9	318.6	321.9	321.9	322.8	322.8
42.5°	279.8	280.0	281.8	283.7	284.2	284.6	287.4	287.9	289.2	289.9	290.9
45°	251.1	252.5	253.6	253.8	255.0	255.2	255.9	256.6	258.7	258.2	258.7
47.5°	224.9	225.6	226.3	226.3	227.0	226.8	227.9	227.2	228.6	229.1	229.8
50°	199.2	200.4	199.7	200.2	199.9	200.6	200.2	200.2	200.2	201.1	201.8
52.5°	175.6	175.9	175.2	175.4	175.4	174.9	175.4	175.2	174.9	174.9	175.2
55°	153.9	153.0	152.5	151.6	150.4	151.8	151.1	150.6	151.6	151.1	151.6
57.5°	132.8	131.7	130.7	130.3	128.7	129.6	128.7	128.2	128.2	128.2	129.3
60°	112.9	111.8	110.6	109.2	109.0	108.5	108.1	106.9	107.1	106.9	107.4
62.5°	95.6	93.3	91.6	90.5	90.2	89.5	88.9	87.7	87.9	87.9	88.2
65°	79.6	77.1	74.7	73.1	73.1	72.0	70.8	70.8	69.4	69.9	70.1
67.5°	63.6	61.6	59.2	58.1	57.4	56.5	55.8	55.3	54.6	54.6	55.1
70°	49.3	47.2	46.0	44.2	44.0	43.3	42.3	41.7	41.4	41.4	41.2
72.5°	37.3	35.4	34.0	32.9	32.2	31.5	30.5	30.3	29.8	29.8	30.3
75°	25.9	24.8	23.6	22.4	22.0	21.8	21.1	20.6	20.6	20.4	20.6
77.5°	17.4	16.2	15.0	14.6	14.1	13.7	13.4	13.2	12.5	12.5	12.5
80°	9.9	9.5	9.0	8.3	8.3	8.1	7.6	7.4	7.2	7.2	7.2
82.5°	5.1	4.9	4.4	4.2	4.2	4.2	3.9	3.9	3.7	3.7	3.7
85°	2.1	1.9	1.6	1.6	1.6	1.6	1.6	1.6	1.9	1.6	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°	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1
2.5°	628.7	628.5	628.5	628.5	628.5	628.5	628.2	628.2	628.0	628.0	628.0
5°	624.8	624.5	624.3	624.1	623.8	623.6	623.4	623.1	622.4	622.2	621.8
7.5°	619.2	618.7	618.1	617.8	617.4	616.7	615.7	615.3	614.4	613.2	612.7
10°	611.8	610.9	610.2	609.0	608.8	607.9	605.6	604.4	602.8	601.4	599.8
12.5°	602.8	601.9	600.2	598.6	597.7	595.6	593.5	591.7	589.6	586.6	584.3
15°	591.7	590.3	587.0	586.6	585.2	582.0	579.2	575.7	572.5	569.2	566.5
17.5°	576.9	573.9	572.2	570.2	568.5	564.4	561.4	557.4	553.0	549.3	545.4
20°	557.4	554.2	551.4	550.3	548.2	544.5	540.8	535.9	531.5	526.9	523.4
22.5°	534.3	532.2	528.0	526.7	524.1	520.4	516.0	511.4	507.2	502.1	497.5
25°	509.5	506.5	503.3	500.5	498.7	495.2	489.6	486.2	481.5	476.0	472.5
27.5°	483.2	479.7	475.1	473.2	471.6	467.0	462.3	457.9	454.2	449.4	446.4
30°	452.6	450.1	447.1	444.7	442.4	438.7	434.6	429.5	425.5	423.2	419.1
32.5°	421.6	419.5	415.6	414.4	411.9	408.9	405.9	402.2	398.0	394.5	391.3
35°	388.5	386.4	383.7	381.6	380.6	378.6	375.3	372.1	370.0	366.1	364.4
37.5°	355.4	354.7	352.0	349.9	349.2	346.6	345.0	342.7	339.7	338.8	336.9
40°	321.4	320.9	319.3	319.1	317.7	317.0	314.7	312.8	311.5	310.8	309.6
42.5°	290.2	289.7	288.3	288.5	287.2	286.7	286.5	284.8	283.7	282.3	282.5
45°	259.4	258.9	258.0	257.5	258.2	258.0	257.5	256.8	256.8	257.1	256.4
47.5°	229.8	230.2	229.3	229.8	229.8	229.1	229.1	230.0	230.2	230.7	231.2
50°	201.8	203.2	202.7	203.4	203.6	203.9	203.2	204.3	204.1	206.2	205.7
52.5°	176.3	176.6	177.5	177.7	177.9	178.2	179.3	180.3	180.5	181.4	183.0
55°	151.8	152.0	153.9	153.9	155.0	155.3	156.9	157.3	158.0	160.6	161.1
57.5°	128.7	130.0	131.0	131.4	132.1	133.3	134.2	136.3	137.4	139.1	140.7
60°	107.8	109.4	110.6	111.1	112.0	113.4	114.5	116.9	118.9	120.8	121.9
62.5°	88.6	90.0	90.9	92.6	92.6	93.7	96.5	97.9	100.2	101.8	103.9
65°	71.5	72.4	74.0	74.0	75.0	76.8	79.1	81.2	83.5	85.8	87.9
67.5°	56.0	56.7	57.6	58.5	59.0	61.3	63.2	66.2	68.3	69.9	72.4
70°	42.3	42.8	44.0	44.9	45.6	47.2	49.3	51.4	53.5	55.3	57.8
72.5°	30.3	31.2	32.4	33.1	33.6	34.7	36.8	38.9	40.7	42.6	44.0
75°	20.8	21.5	22.0	22.7	23.4	24.3	25.7	27.1	29.2	31.0	32.6
77.5°	13.0	13.7	14.3	14.6	14.8	15.7	16.7	18.0	19.4	20.8	22.0
80°	7.6	7.9	8.1	8.3	8.8	9.5	9.9	10.9	11.8	12.7	13.9
82.5°	3.9	4.2	4.4	4.4	4.4	4.6	5.3	5.8	6.0	6.5	7.2
85°	1.6	1.6	1.6	1.9	1.9	2.1	2.1	2.3	2.3	2.5	2.8
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°	630.1	630.1	630.1	630.1	630.1	630.1	630.1	630.1
2.5°	627.8	627.8	627.8	627.5	627.8	627.8	627.8	627.5
5°	621.8	621.3	621.3	621.1	620.8	620.8	621.1	620.6
7.5°	611.8	611.1	610.6	610.6	610.4	610.2	610.2	609.0
10°	598.8	597.5	597.5	597.0	595.1	594.9	594.5	594.5
12.5°	582.6	581.0	580.1	578.9	577.8	576.9	576.6	575.7
15°	563.4	561.4	559.7	559.3	557.4	556.0	556.0	555.6
17.5°	542.6	539.4	538.2	537.1	534.5	534.3	533.8	531.7
20°	519.0	516.0	514.4	513.2	511.6	509.3	508.8	509.1
22.5°	494.3	490.1	488.7	487.5	485.9	483.8	483.8	482.2
25°	468.6	464.9	463.5	462.1	459.5	458.6	457.5	457.7
27.5°	442.4	439.0	437.8	435.3	433.6	432.5	431.3	431.3
30°	415.1	413.3	411.4	411.2	407.9	406.6	405.4	404.5
32.5°	388.7	386.4	385.5	384.6	383.0	381.1	380.9	379.3
35°	362.8	360.5	359.4	358.4	356.6	355.9	355.2	355.7
37.5°	335.5	335.1	334.4	333.2	332.1	331.8	330.9	332.1
40°	308.7	308.4	307.5	307.8	307.8	307.3	307.8	307.8
42.5°	282.8	282.8	281.8	282.3	282.5	283.0	283.7	284.2
45°	257.5	257.3	257.5	258.0	257.5	258.7	259.6	260.3
47.5°	231.6	231.9	232.8	233.0	233.5	235.1	235.1	235.1
50°	206.9	208.0	207.6	208.9	208.7	209.6	208.7	208.7
52.5°	183.3	184.4	184.7	184.9	186.3	186.5	186.5	186.3
55°	162.2	163.8	163.1	164.3	165.0	165.4	166.1	165.7
57.5°	142.8	143.5	144.2	144.4	145.3	145.8	146.2	145.8
60°	123.6	125.0	126.1	126.3	126.8	127.3	127.5	128.2
62.5°	105.5	107.8	108.3	108.5	109.7	110.4	110.8	111.3
65°	89.5	91.2	92.3	93.0	93.9	93.9	94.6	94.6
67.5°	74.0	75.7	76.4	76.8	78.2	78.4	79.6	79.6
70°	59.9	61.1	61.6	62.2	63.6	64.6	65.0	65.5
72.5°	46.3	47.7	48.4	49.3	50.2	50.9	51.1	51.8
75°	33.8	35.9	36.1	37.0	37.7	38.6	39.1	38.9
77.5°	23.6	24.3	25.2	25.7	26.4	27.1	27.8	27.8
80°	14.6	15.5	15.7	16.0	16.9	17.4	17.8	17.8
82.5°	7.6	8.1	8.6	8.8	9.3	9.3	9.5	9.7
85°	3.0	3.2	3.2	3.2	3.5	3.7	3.7	3.7
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)