

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: P879371

Luminaire Tested: **LD4C15D010 EU4159030 4LBDWWLI**

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: P879371
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C15D010 EU4159030 4LBLDWWLI
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

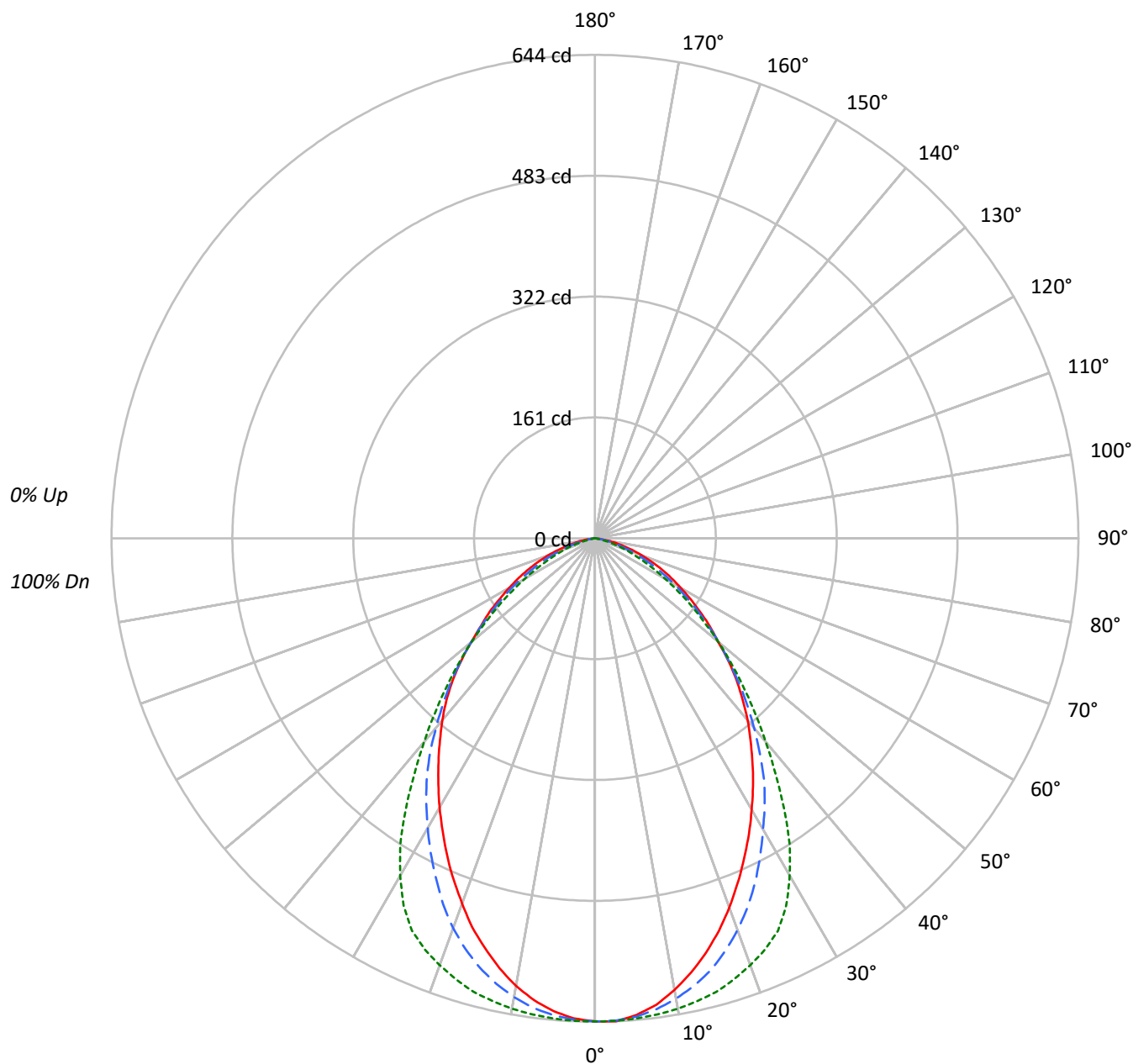
Lumens per Lamp: N/A
Luminaire Lumens: 1182.0 lumens
Efficiency: N/A
Efficacy: 74.8 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88		
2	103	96	90	85	100	94	89	84	91	86	83	87	84	81	85	82	79	77		
3	95	86	79	74	93	84	78	73	82	76	72	79	74	70	77	73	69	67		
4	88	78	70	64	86	76	69	64	74	68	63	72	66	62	70	65	61	59		
5	82	70	62	57	80	69	62	56	67	61	56	65	60	55	64	59	55	53		
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	45	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°	79068	79068	79068
5°	78594	79186	78002
10°	76209	79390	75548
15°	72700	79556	71912
20°	68402	79110	67657
25°	63724	78174	63195
30°	59198	73611	58730
35°	54906	65840	54501
40°	50758	56772	50726
45°	46250	48474	46632
50°	40844	40997	41073
55°	36605	33499	36755
60°	32360	26610	32409
65°	28488	20291	28198
70°	23599	14512	23599
75°	18417	8354	17705
80°	11886	2052	11391
85°	4370	705	3383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.4	5.1
10°-20°	167.2	14.1
20°-30°	233.7	19.8
30°-40°	246.5	20.9
40°-50°	209.7	17.7
50°-60°	148.0	12.5
60°-70°	83.9	7.1
70°-80°	29.9	2.5
80°-90°	2.9	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°	461.2	39.0
0°-40°	707.7	59.9
0°-60°	1065.3	90.1
0°-90°	1182.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1182.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	644	644	644	644	644	
5°	637	640	642	638	632	60
15°	572	596	626	592	565	160
25°	470	505	577	501	466	216
35°	366	393	439	390	363	229
45°	266	270	279	271	268	205
55°	171	165	156	166	172	153
65°	98	84	70	84	97	97
75°	39	26	18	26	37	42
85°	3	1	0	1	2	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°	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6
2.5°	644.1	642.9	642.9	642.9	642.9	642.9	642.9	642.9	642.9	643.1	643.1
5°	637.3	636.9	636.6	636.6	636.6	636.6	636.9	637.8	638.3	639.0	639.5
7.5°	626.7	625.8	626.3	626.3	626.7	627.2	627.9	628.9	630.4	631.3	632.5
10°	610.9	609.9	611.1	611.6	613.0	613.7	615.0	616.4	619.3	620.7	622.7
12.5°	592.3	591.8	592.3	594.3	595.7	596.7	598.1	601.2	604.1	607.2	610.6
15°	571.6	570.4	571.1	573.6	576.0	577.6	578.8	582.9	586.8	591.6	595.7
17.5°	548.5	546.8	548.8	550.7	553.8	555.3	556.9	561.5	566.8	572.1	576.7
20°	523.2	522.8	524.0	526.6	529.7	531.7	533.1	538.2	542.7	550.0	555.3
22.5°	497.0	497.5	498.5	501.3	503.5	506.2	508.3	512.9	518.2	524.9	531.7
25°	470.1	470.8	472.5	474.4	478.0	479.4	482.1	486.9	491.5	497.7	505.2
27.5°	444.1	444.3	446.2	447.2	450.6	453.7	454.9	459.9	465.2	470.1	476.6
30°	417.3	418.1	419.3	421.9	425.3	426.5	427.9	432.5	436.6	442.6	447.7
32.5°	391.8	391.4	392.8	394.2	398.1	400.3	401.0	406.3	409.9	415.9	420.7
35°	366.1	364.9	367.0	368.5	371.9	373.8	374.7	378.8	382.2	387.3	392.6
37.5°	340.3	341.3	342.3	343.5	345.1	345.6	348.5	349.5	353.8	357.7	360.5
40°	316.5	316.0	315.5	316.7	318.9	319.9	320.1	322.8	323.7	327.6	329.7
42.5°	291.0	291.2	291.0	291.2	292.4	292.4	293.2	294.8	295.6	296.8	299.4
45°	266.2	266.2	265.5	265.7	266.0	265.7	266.0	266.7	268.1	268.1	270.0
47.5°	240.4	240.0	240.9	240.2	239.7	239.5	240.2	239.5	240.9	240.9	241.4
50°	213.7	213.7	214.9	214.7	215.2	214.2	214.5	214.5	214.7	214.5	215.4
52.5°	193.0	192.5	192.1	190.9	191.3	190.4	190.4	190.6	189.9	189.7	188.5
55°	170.9	171.4	170.6	170.2	170.2	169.2	169.0	167.5	166.6	165.8	165.1
57.5°	150.9	151.4	151.2	149.9	148.5	148.7	148.3	146.8	144.7	143.2	142.0
60°	131.7	132.1	131.7	130.5	130.0	129.0	128.8	126.8	125.2	123.2	121.8
62.5°	114.3	114.3	114.1	112.4	111.2	111.4	110.2	108.8	106.6	104.0	101.8
65°	98.0	97.7	96.5	95.8	94.8	93.6	92.9	90.7	89.1	86.9	84.0
67.5°	81.6	80.9	80.4	79.7	77.5	77.3	76.3	74.4	72.0	70.3	67.9
70°	65.7	65.5	64.5	64.5	62.8	62.1	60.7	59.0	56.8	54.4	52.5
72.5°	52.0	51.5	50.5	49.6	48.1	47.7	46.5	44.8	42.8	40.4	38.0
75°	38.8	38.3	38.0	36.8	35.6	34.4	33.9	32.3	30.3	28.6	26.5
77.5°	27.2	26.7	26.0	25.3	24.5	23.8	23.1	21.7	20.0	18.5	16.6
80°	16.8	16.4	15.9	15.6	14.9	14.7	13.7	13.0	11.6	10.6	9.4
82.5°	8.7	8.7	8.2	7.9	7.5	7.2	7.0	6.3	5.5	4.8	4.1
85°	3.1	3.1	2.9	2.6	2.6	2.4	2.4	2.2	1.7	1.7	1.2
87.5°	0.2	0.2	0.5	0.2	0.2	0.2	0.2	0.2	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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6
2.5°	643.4	643.1	643.4	643.4	643.6	643.6	643.6	643.4	643.6	643.4	643.4
5°	639.5	640.2	640.7	641.2	641.4	641.7	641.7	641.9	642.1	642.1	641.9
7.5°	633.5	634.9	636.4	637.3	637.8	638.3	639.0	639.5	640.0	639.7	639.5
10°	625.5	627.9	629.9	631.8	632.8	633.5	634.7	635.6	636.1	636.4	635.6
12.5°	614.2	617.6	620.7	623.9	625.3	626.3	628.7	630.4	631.3	631.3	630.6
15°	600.0	604.8	609.4	613.5	615.9	617.4	621.0	623.4	624.8	625.5	624.3
17.5°	582.9	588.5	594.0	599.3	601.7	603.9	608.9	612.3	615.4	615.9	614.5
20°	561.0	568.0	574.3	580.8	583.4	586.8	592.6	598.1	602.9	605.1	601.0
22.5°	536.5	544.2	550.0	557.9	561.5	565.1	572.6	579.6	588.0	592.6	585.3
25°	511.0	517.5	524.5	532.2	537.2	541.1	549.7	558.6	569.9	576.7	566.6
27.5°	483.5	489.3	497.7	506.2	510.0	514.8	525.2	534.8	545.6	551.7	544.2
30°	455.1	462.4	470.3	478.0	483.5	488.1	496.5	504.7	513.9	518.9	513.4
32.5°	427.0	434.0	440.7	449.1	452.2	456.3	463.8	470.8	477.8	482.3	475.8
35°	397.4	403.6	409.9	415.7	417.1	421.9	427.9	432.0	435.4	439.0	434.7
37.5°	365.1	369.9	373.1	379.3	381.7	382.4	387.3	390.2	393.8	394.5	394.2
40°	332.4	336.7	339.4	343.2	345.1	345.1	348.5	351.2	353.8	354.0	353.8
42.5°	301.8	304.0	306.2	308.6	308.1	311.0	312.4	313.6	315.5	315.5	316.0
45°	271.0	272.7	274.6	275.1	277.0	277.0	278.2	278.7	279.7	279.0	278.0
47.5°	242.4	243.1	243.3	245.5	246.0	244.3	245.7	246.0	245.7	245.7	245.3
50°	215.2	215.7	215.4	214.7	214.9	215.7	214.9	214.0	214.5	214.5	214.9
52.5°	188.7	187.7	187.3	187.3	186.3	186.3	185.1	184.6	184.4	183.4	184.6
55°	164.4	162.9	160.8	160.3	159.6	159.3	157.9	156.7	156.2	156.4	156.2
57.5°	141.0	138.9	137.4	136.9	136.2	134.8	133.1	131.9	131.7	131.2	131.2
60°	119.9	117.5	115.3	113.1	113.4	112.4	110.7	110.0	109.3	108.3	109.0
62.5°	100.6	98.0	95.6	93.4	91.9	91.2	90.0	88.8	88.1	87.4	88.3
65°	81.6	79.4	76.8	74.6	73.9	73.2	72.0	70.0	69.8	69.8	70.3
67.5°	64.5	62.1	59.7	58.2	57.3	56.3	55.8	54.9	54.2	53.7	53.9
70°	49.6	47.2	45.2	43.8	43.1	42.8	41.2	40.9	40.7	40.4	40.2
72.5°	36.1	34.2	32.5	31.5	30.6	29.8	29.4	28.6	28.4	28.4	28.4
75°	24.8	23.3	21.4	20.2	19.7	19.0	18.3	17.8	17.3	17.6	17.6
77.5°	14.9	13.5	12.3	11.3	11.1	10.3	9.6	9.1	8.4	8.4	8.7
80°	8.2	7.0	6.0	5.3	4.8	4.6	3.9	3.6	3.1	2.9	2.9
82.5°	3.6	2.9	2.4	2.2	1.9	1.7	1.4	1.2	1.2	1.0	1.2
85°	1.2	1.0	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.2	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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6
2.5°	643.1	643.1	642.9	642.9	642.9	642.4	642.4	642.1	641.9	641.7	641.2
5°	641.4	641.2	640.7	640.5	640.2	639.5	638.8	638.3	637.6	636.6	636.1
7.5°	639.0	638.3	637.3	636.9	636.1	634.4	633.2	632.0	630.8	629.2	627.2
10°	634.9	633.5	632.0	631.1	629.9	627.7	625.3	623.4	620.7	618.3	615.7
12.5°	629.2	627.5	624.6	623.1	621.7	618.6	615.4	611.3	607.7	604.4	601.2
15°	621.9	618.8	615.4	613.5	611.3	606.3	601.5	597.1	592.3	588.2	583.2
17.5°	611.3	606.8	602.0	599.8	596.9	591.1	585.3	579.3	573.8	568.7	562.5
20°	595.5	590.4	584.1	580.8	578.4	570.7	565.1	558.4	552.6	546.4	539.4
22.5°	576.9	569.9	563.0	558.1	555.5	547.8	540.3	534.3	528.1	520.8	515.8
25°	556.0	547.3	538.9	534.1	530.0	521.8	514.6	508.3	500.6	494.4	489.3
27.5°	532.4	522.5	512.7	507.8	504.0	495.1	487.4	480.9	473.4	467.9	462.6
30°	504.2	495.3	485.9	482.1	477.5	468.4	459.5	453.7	445.5	439.7	434.0
32.5°	469.1	463.3	455.9	450.6	448.2	439.7	432.3	425.3	418.3	413.7	408.0
35°	430.6	425.5	419.3	416.4	413.3	408.0	401.9	395.9	390.4	386.1	380.8
37.5°	391.6	386.5	382.7	379.6	377.6	372.8	369.2	364.6	360.8	356.7	353.8
40°	351.2	349.7	345.6	344.2	343.7	338.4	335.3	331.7	329.3	326.9	325.2
42.5°	315.3	312.9	309.8	310.0	308.6	305.7	303.5	301.1	299.4	298.2	296.5
45°	279.9	278.0	276.5	277.8	275.3	274.4	272.7	272.5	271.3	269.1	268.4
47.5°	246.2	246.0	246.2	245.5	245.0	244.5	244.8	243.6	242.4	241.6	240.7
50°	215.4	215.7	216.1	216.9	215.2	215.9	215.7	215.4	215.4	214.7	215.2
52.5°	185.6	185.8	186.3	187.0	187.3	187.3	188.0	188.5	189.4	190.6	190.6
55°	157.4	159.1	160.1	161.3	160.5	162.0	162.7	164.9	165.6	165.6	166.6
57.5°	132.4	134.1	134.8	136.2	136.7	137.9	139.8	141.0	142.7	144.2	145.6
60°	109.5	110.2	112.2	114.3	113.8	116.7	118.2	120.1	122.3	123.2	125.2
62.5°	89.1	90.0	91.5	92.2	93.9	95.3	98.7	100.6	102.5	104.9	106.9
65°	70.8	71.7	73.2	74.6	75.3	77.5	79.2	82.6	84.2	86.9	89.1
67.5°	54.2	55.6	56.8	57.8	58.2	60.4	63.1	64.5	67.6	70.3	72.0
70°	40.4	41.6	43.1	42.8	43.8	45.5	47.4	49.6	52.0	54.4	56.3
72.5°	28.2	29.4	30.3	30.6	31.5	32.7	34.2	35.9	37.8	40.2	42.8
75°	17.8	18.1	19.0	19.5	20.0	21.4	22.6	24.3	26.0	27.9	29.6
77.5°	8.9	9.6	10.1	10.6	10.8	12.0	13.2	14.7	16.1	18.1	19.7
80°	3.4	3.6	4.3	4.6	5.1	5.8	6.7	7.5	8.7	10.1	11.1
82.5°	1.2	1.4	1.7	1.7	1.9	2.4	2.6	3.4	4.1	4.6	5.1
85°	0.5	0.5	0.5	0.5	0.5	0.7	0.7	1.0	1.2	1.4	1.4
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):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	643.6	643.6	643.6	643.6	643.6	643.6	643.6	643.6
2.5°	640.9	640.9	640.7	640.5	640.5	640.5	640.2	640.2
5°	635.2	634.4	634.2	633.7	633.5	633.2	632.5	632.5
7.5°	625.8	624.8	624.1	623.4	622.4	621.7	621.7	620.7
10°	613.3	611.3	610.4	609.4	608.2	606.8	606.3	605.6
12.5°	598.1	594.3	593.3	591.6	589.7	588.7	587.0	587.0
15°	579.3	575.2	573.1	572.1	569.7	568.0	567.3	565.4
17.5°	557.4	554.3	550.9	549.5	546.8	544.7	543.7	543.5
20°	535.3	530.2	528.1	525.9	522.8	520.8	519.4	517.5
22.5°	509.8	505.2	502.1	500.6	498.0	494.6	492.2	492.2
25°	482.8	478.7	477.0	473.9	470.8	469.6	466.7	466.2
27.5°	457.1	453.0	449.6	447.9	444.3	442.6	440.2	439.3
30°	430.3	425.5	423.1	422.9	418.6	416.9	414.9	414.0
32.5°	403.6	399.5	397.1	395.7	393.8	390.9	389.2	388.2
35°	377.2	374.5	372.3	370.7	367.5	366.1	364.6	363.4
37.5°	349.5	347.1	346.1	344.7	343.2	340.6	340.1	339.1
40°	322.8	319.6	319.6	318.7	317.2	317.0	316.3	316.3
42.5°	294.8	293.4	293.2	293.4	292.4	292.0	291.2	292.9
45°	267.2	267.9	266.7	266.9	266.4	267.4	267.4	268.4
47.5°	241.6	240.7	241.2	241.6	242.4	242.4	242.1	241.9
50°	214.5	215.4	216.4	215.2	215.7	215.9	214.7	214.9
52.5°	191.1	191.3	192.1	191.3	192.1	191.8	192.3	191.3
55°	168.5	168.5	169.4	169.7	169.9	170.6	170.9	171.6
57.5°	146.6	147.8	149.0	148.7	149.7	150.7	149.9	150.7
60°	127.6	128.5	129.7	130.2	130.9	131.4	131.4	131.9
62.5°	108.3	110.2	111.2	112.2	112.2	113.1	114.1	114.3
65°	91.0	93.1	93.9	94.6	95.1	96.0	97.2	97.0
67.5°	74.6	76.1	77.0	77.5	78.9	79.4	80.4	81.4
70°	58.5	60.4	61.1	62.1	63.3	64.3	65.2	65.7
72.5°	44.8	46.2	46.7	47.7	48.9	49.8	50.3	51.0
75°	31.3	33.7	33.9	34.7	35.6	36.8	37.5	37.3
77.5°	20.7	22.4	22.6	23.6	24.5	25.5	25.8	26.0
80°	12.3	13.2	13.5	14.0	14.7	15.2	15.6	16.1
82.5°	5.8	6.3	6.7	6.7	7.2	7.7	7.7	7.9
85°	1.9	1.9	2.2	2.2	2.4	2.4	2.6	2.4
87.5°	0.2	0.2	0.0	0.2	0.2	0.2	0.2	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)