

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: P879372

Luminaire Tested: **LD4C15D010 EU4159035 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: P879372
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 EU4159035 4LBLDWWH
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBLDWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

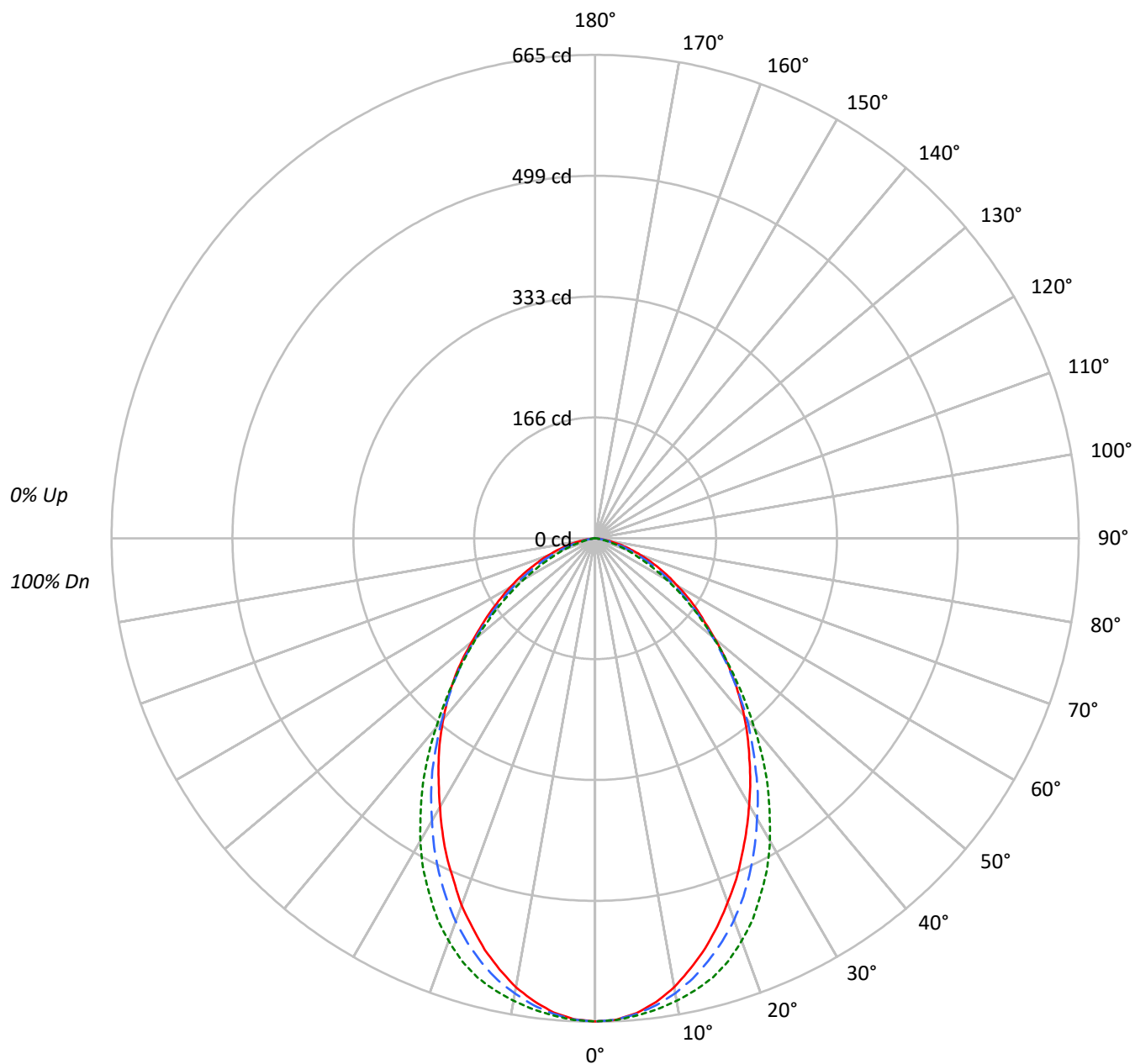
Lumens per Lamp: N/A
Luminaire Lumens: 1189.0 lumens
Efficiency: N/A
Efficacy: 75.3 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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°	81661	81661	81661
5°	80838	81282	80739
10°	78205	80588	78242
15°	74303	79543	74544
20°	69644	77044	70219
25°	64862	73104	65459
30°	60091	68192	60531
35°	55431	61985	56271
40°	51127	54623	52073
45°	46319	47327	47709
50°	41054	40538	42086
55°	36605	34142	37440
60°	32040	27716	33220
65°	28023	21424	29011
70°	23599	15697	24821
75°	18417	10205	19461
80°	12098	5377	13301
85°	4088	2396	5497



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.1	5.2
10°-20°	169.6	14.3
20°-30°	233.2	19.6
30°-40°	243.3	20.5
40°-50°	208.1	17.5
50°-60°	148.9	12.5
60°-70°	86.4	7.3
70°-80°	33.3	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°	464.8	39.1
0°-40°	708.1	59.6
0°-60°	1065.1	89.6
0°-90°	1189.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1189.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	665	665	665	665	665	
5°	656	657	659	657	655	62
15°	584	602	625	604	586	164
25°	478	505	539	508	483	220
35°	370	384	413	390	375	231
45°	267	264	272	271	275	206
55°	171	162	159	167	175	153
65°	96	85	74	88	100	96
75°	39	29	22	31	41	42
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°	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7
2.5°	663.0	662.6	662.8	662.8	662.8	662.6	663.0	663.0	662.8	662.8	662.8
5°	655.5	655.0	655.2	655.5	655.5	655.5	655.7	656.0	656.2	656.4	656.7
7.5°	643.3	642.5	643.3	644.2	644.2	644.5	644.7	645.0	645.7	646.9	647.7
10°	626.9	626.9	627.2	627.9	629.1	628.9	629.6	630.8	632.3	634.0	635.2
12.5°	606.2	606.6	607.4	608.1	609.3	610.1	611.3	612.8	615.2	617.6	620.3
15°	584.2	584.4	584.7	586.4	587.6	589.3	590.3	593.2	595.4	598.8	601.8
17.5°	559.5	559.3	560.0	561.5	564.4	565.1	566.4	569.5	572.7	577.4	581.3
20°	532.7	534.1	535.1	537.1	538.8	540.7	541.7	545.6	549.3	553.7	558.8
22.5°	507.3	506.1	507.8	510.0	511.4	512.9	514.6	518.8	522.7	528.0	533.2
25°	478.5	479.2	480.4	482.1	484.1	486.1	488.0	492.4	494.6	500.2	504.8
27.5°	451.1	452.4	452.8	455.0	456.8	458.2	459.2	464.3	466.3	471.2	475.8
30°	423.6	424.8	424.8	427.2	428.4	429.9	432.3	435.8	438.7	442.1	445.5
32.5°	396.9	396.9	397.9	400.1	401.3	403.0	403.8	406.2	409.2	412.6	416.2
35°	369.6	370.3	371.3	371.3	373.5	374.5	375.5	377.9	379.9	381.3	384.3
37.5°	344.5	344.5	343.7	344.9	346.4	346.2	347.6	348.9	350.1	351.8	354.2
40°	318.8	318.8	317.8	318.6	319.6	319.3	318.8	320.0	321.0	322.2	324.7
42.5°	292.7	292.2	292.0	292.0	292.5	292.0	292.5	292.7	292.7	292.7	294.2
45°	266.6	267.8	266.3	265.9	265.1	264.4	264.1	264.4	265.4	264.1	264.4
47.5°	241.0	241.4	240.5	239.7	239.0	238.5	239.0	237.5	238.0	238.3	237.3
50°	214.8	213.9	213.9	213.1	213.4	213.1	212.6	212.1	212.1	210.9	210.2
52.5°	190.7	191.1	191.6	189.9	190.2	189.0	189.2	188.0	188.0	186.5	187.0
55°	170.9	170.2	170.2	169.4	169.2	168.0	167.7	167.0	165.3	164.3	162.3
57.5°	150.4	150.1	149.2	149.4	147.9	147.7	147.2	146.0	144.8	143.5	141.3
60°	130.4	130.6	130.6	130.1	129.4	128.2	128.4	126.7	125.0	122.8	120.8
62.5°	113.8	113.0	112.8	112.3	110.8	110.8	109.6	108.4	106.7	104.5	102.8
65°	96.4	96.7	95.9	95.2	93.7	93.5	92.5	91.5	89.8	87.6	85.2
67.5°	80.8	80.3	80.1	79.3	77.9	77.6	76.9	74.7	73.2	71.0	69.1
70°	65.7	65.2	65.4	64.2	62.7	62.0	61.8	60.1	57.9	56.1	54.2
72.5°	51.5	51.5	51.3	50.0	49.3	48.8	47.8	45.9	44.7	42.7	41.3
75°	38.8	38.6	38.1	37.4	36.4	35.9	35.4	34.2	32.5	30.3	29.1
77.5°	26.9	27.1	26.6	26.4	25.1	24.4	24.2	23.4	22.0	20.5	19.3
80°	17.1	16.8	16.6	16.1	15.9	15.6	14.9	14.4	12.9	12.2	11.5
82.5°	9.3	8.8	8.8	8.5	8.1	7.8	7.6	7.1	6.8	6.3	5.9
85°	2.9	3.2	2.9	2.9	2.9	2.7	2.7	2.7	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°	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7
2.5°	662.8	663.0	663.0	663.3	663.3	663.3	663.3	663.3	663.3	663.3	663.3
5°	657.4	657.4	657.9	658.4	658.4	658.4	658.6	659.1	659.1	659.1	658.9
7.5°	648.6	649.6	650.6	651.6	651.8	652.1	652.5	653.5	653.5	653.5	653.5
10°	637.2	639.4	640.6	642.0	642.8	643.3	644.7	645.0	645.7	646.0	645.7
12.5°	622.5	625.4	628.1	630.6	631.5	632.5	634.0	635.5	636.2	636.9	636.7
15°	606.2	609.3	613.5	616.2	618.1	619.6	621.8	623.7	625.0	625.4	625.4
17.5°	586.4	590.3	594.7	599.1	600.3	602.7	605.2	607.9	609.3	609.6	609.3
20°	564.4	568.8	572.5	576.9	579.5	580.8	584.2	587.6	589.1	589.3	589.1
22.5°	538.3	542.4	547.3	552.0	554.2	556.4	560.0	563.4	565.4	566.9	565.4
25°	509.2	515.1	519.7	523.6	526.8	529.0	533.7	536.3	539.5	539.3	539.5
27.5°	480.7	485.6	490.7	495.3	497.3	499.7	503.4	507.8	510.5	512.2	511.9
30°	451.4	455.3	459.7	463.8	467.0	469.0	474.3	476.3	479.7	480.7	479.9
32.5°	420.4	423.1	427.5	433.1	434.3	436.2	439.7	444.5	445.8	446.3	446.5
35°	387.4	392.6	396.2	399.6	400.6	402.3	406.2	409.9	411.1	413.3	412.3
37.5°	356.9	359.8	361.5	365.0	367.9	369.4	371.3	373.8	376.2	377.2	376.9
40°	326.4	327.9	329.3	333.0	333.2	333.2	336.2	339.6	339.6	340.6	340.6
42.5°	295.1	295.4	297.3	299.3	299.8	300.3	303.2	303.7	305.2	305.9	306.9
45°	264.9	266.3	267.6	267.8	269.0	269.3	270.0	270.7	272.9	272.4	272.9
47.5°	237.3	238.0	238.8	238.8	239.5	239.2	240.5	239.7	241.2	241.7	242.4
50°	210.2	211.4	210.7	211.2	210.9	211.7	211.2	211.2	211.2	212.1	212.9
52.5°	185.3	185.5	184.8	185.0	185.0	184.6	185.0	184.8	184.6	184.6	184.8
55°	162.3	161.4	160.9	159.9	158.7	160.1	159.4	158.9	159.9	159.4	159.9
57.5°	140.1	138.9	137.9	137.4	135.7	136.7	135.7	135.2	135.2	135.2	136.5
60°	119.1	117.9	116.7	115.2	115.0	114.5	114.0	112.8	113.0	112.8	113.3
62.5°	100.8	98.4	96.7	95.5	95.2	94.5	93.7	92.5	92.8	92.8	93.0
65°	84.0	81.3	78.9	77.1	77.1	75.9	74.7	74.7	73.2	73.7	74.0
67.5°	67.1	64.9	62.5	61.3	60.5	59.6	58.8	58.3	57.6	57.6	58.1
70°	52.0	49.8	48.6	46.6	46.4	45.7	44.7	43.9	43.7	43.7	43.5
72.5°	39.3	37.4	35.9	34.7	33.9	33.2	32.2	32.0	31.5	31.5	32.0
75°	27.3	26.1	24.9	23.7	23.2	22.9	22.2	21.7	21.7	21.5	21.7
77.5°	18.3	17.1	15.9	15.4	14.9	14.4	14.2	13.9	13.2	13.2	13.2
80°	10.5	10.0	9.5	8.8	8.8	8.5	8.1	7.8	7.6	7.6	7.6
82.5°	5.4	5.1	4.6	4.4	4.4	4.4	4.2	4.2	3.9	3.9	3.9
85°	2.2	2.0	1.7	1.7	1.7	1.7	1.7	1.7	2.0	1.7	2.0
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°	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7
2.5°	663.3	663.0	663.0	663.0	663.0	663.0	662.8	662.8	662.6	662.6	662.6
5°	659.1	658.9	658.6	658.4	658.2	657.9	657.7	657.4	656.7	656.4	656.0
7.5°	653.3	652.8	652.1	651.8	651.3	650.6	649.6	649.1	648.1	646.9	646.4
10°	645.5	644.5	643.8	642.5	642.3	641.3	638.9	637.7	635.9	634.5	632.8
12.5°	635.9	635.0	633.3	631.5	630.6	628.4	626.2	624.2	622.0	618.9	616.4
15°	624.2	622.8	619.3	618.9	617.4	614.0	611.0	607.4	604.0	600.5	597.6
17.5°	608.6	605.4	603.7	601.5	599.8	595.4	592.2	588.1	583.5	579.5	575.4
20°	588.1	584.7	581.7	580.5	578.3	574.4	570.5	565.4	560.8	555.9	552.2
22.5°	563.7	561.5	557.1	555.6	552.9	549.0	544.4	539.5	535.1	529.7	524.9
25°	537.6	534.4	531.0	528.0	526.1	522.4	516.6	512.9	508.0	502.2	498.5
27.5°	509.7	506.1	501.2	499.2	497.5	492.6	487.8	483.1	479.2	474.1	470.9
30°	477.5	474.8	471.6	469.2	466.8	462.9	458.5	453.1	448.9	446.5	442.1
32.5°	444.8	442.6	438.4	437.2	434.5	431.4	428.2	424.3	419.9	416.2	412.8
35°	409.9	407.7	404.8	402.6	401.6	399.4	396.0	392.6	390.4	386.2	384.5
37.5°	375.0	374.2	371.3	369.1	368.4	365.7	364.0	361.5	358.4	357.4	355.4
40°	339.1	338.6	336.9	336.6	335.2	334.4	332.0	330.1	328.6	327.9	326.6
42.5°	306.1	305.6	304.2	304.4	303.0	302.5	302.2	300.5	299.3	297.8	298.1
45°	273.7	273.2	272.2	271.7	272.4	272.2	271.7	271.0	271.0	271.2	270.5
47.5°	242.4	242.9	241.9	242.4	242.4	241.7	241.7	242.7	242.9	243.4	243.9
50°	212.9	214.3	213.9	214.6	214.8	215.1	214.3	215.6	215.3	217.5	217.0
52.5°	186.0	186.3	187.2	187.5	187.7	188.0	189.2	190.2	190.4	191.4	193.1
55°	160.1	160.4	162.3	162.3	163.6	163.8	165.5	166.0	166.7	169.4	169.9
57.5°	135.7	137.2	138.2	138.7	139.4	140.6	141.6	143.8	145.0	146.7	148.4
60°	113.8	115.5	116.7	117.2	118.2	119.6	120.8	123.3	125.5	127.4	128.7
62.5°	93.5	95.0	95.9	97.6	97.6	98.9	101.8	103.3	105.7	107.4	109.6
65°	75.4	76.4	78.1	78.1	79.1	81.0	83.5	85.7	88.1	90.6	92.8
67.5°	59.1	59.8	60.8	61.8	62.3	64.7	66.6	69.8	72.0	73.7	76.4
70°	44.7	45.2	46.4	47.4	48.1	49.8	52.0	54.2	56.4	58.3	61.0
72.5°	32.0	33.0	34.2	34.9	35.4	36.6	38.8	41.0	43.0	44.9	46.4
75°	22.0	22.7	23.2	23.9	24.7	25.6	27.1	28.6	30.8	32.7	34.4
77.5°	13.7	14.4	15.1	15.4	15.6	16.6	17.6	19.0	20.5	22.0	23.2
80°	8.1	8.3	8.5	8.8	9.3	10.0	10.5	11.5	12.5	13.4	14.6
82.5°	4.2	4.4	4.6	4.6	4.6	4.9	5.6	6.1	6.3	6.8	7.6
85°	1.7	1.7	1.7	2.0	2.0	2.2	2.2	2.4	2.4	2.7	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°	664.7	664.7	664.7	664.7	664.7	664.7	664.7	664.7
2.5°	662.3	662.3	662.3	662.1	662.3	662.3	662.3	662.1
5°	656.0	655.5	655.5	655.2	655.0	655.0	655.2	654.7
7.5°	645.5	644.7	644.2	644.2	644.0	643.8	643.8	642.5
10°	631.8	630.3	630.3	629.8	627.9	627.6	627.2	627.2
12.5°	614.7	613.0	612.0	610.8	609.6	608.6	608.4	607.4
15°	594.4	592.2	590.5	590.0	588.1	586.6	586.6	586.1
17.5°	572.5	569.1	567.8	566.6	563.9	563.7	563.2	561.0
20°	547.6	544.4	542.7	541.5	539.8	537.3	536.8	537.1
22.5°	521.4	517.1	515.6	514.4	512.7	510.5	510.5	508.8
25°	494.4	490.4	489.0	487.5	484.8	483.9	482.6	482.9
27.5°	466.8	463.1	461.9	459.2	457.5	456.3	455.0	455.0
30°	438.0	436.0	434.1	433.8	430.4	428.9	427.7	426.7
32.5°	410.1	407.7	406.7	405.7	404.0	402.1	401.8	400.1
35°	382.8	380.3	379.1	378.1	376.2	375.5	374.7	375.2
37.5°	354.0	353.5	352.8	351.5	350.3	350.1	349.1	350.3
40°	325.7	325.4	324.4	324.7	324.7	324.2	324.7	324.7
42.5°	298.3	298.3	297.3	297.8	298.1	298.6	299.3	299.8
45°	271.7	271.5	271.7	272.2	271.7	272.9	273.9	274.6
47.5°	244.4	244.6	245.6	245.8	246.3	248.0	248.0	248.0
50°	218.2	219.5	219.0	220.4	220.2	221.2	220.2	220.2
52.5°	193.3	194.6	194.8	195.1	196.5	196.8	196.8	196.5
55°	171.1	172.8	172.1	173.3	174.1	174.5	175.3	174.8
57.5°	150.6	151.4	152.1	152.3	153.3	153.8	154.3	153.8
60°	130.4	131.8	133.0	133.3	133.8	134.3	134.5	135.2
62.5°	111.3	113.8	114.2	114.5	115.7	116.4	116.9	117.4
65°	94.5	96.2	97.4	98.1	99.1	99.1	99.8	99.8
67.5°	78.1	79.8	80.6	81.0	82.5	82.8	84.0	84.0
70°	63.2	64.4	64.9	65.7	67.1	68.1	68.6	69.1
72.5°	48.8	50.3	51.0	52.0	53.0	53.7	54.0	54.7
75°	35.6	37.8	38.1	39.1	39.8	40.8	41.3	41.0
77.5°	24.9	25.6	26.6	27.1	27.8	28.6	29.3	29.3
80°	15.4	16.4	16.6	16.8	17.8	18.3	18.8	18.8
82.5°	8.1	8.5	9.0	9.3	9.8	9.8	10.0	10.3
85°	3.2	3.4	3.4	3.4	3.7	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)