

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: P879375

Luminaire Tested: **LD4C15D010 EU4159040 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: P879375
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 EU4159040 4LBLDWWLI
Description: 4 INCH 1500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

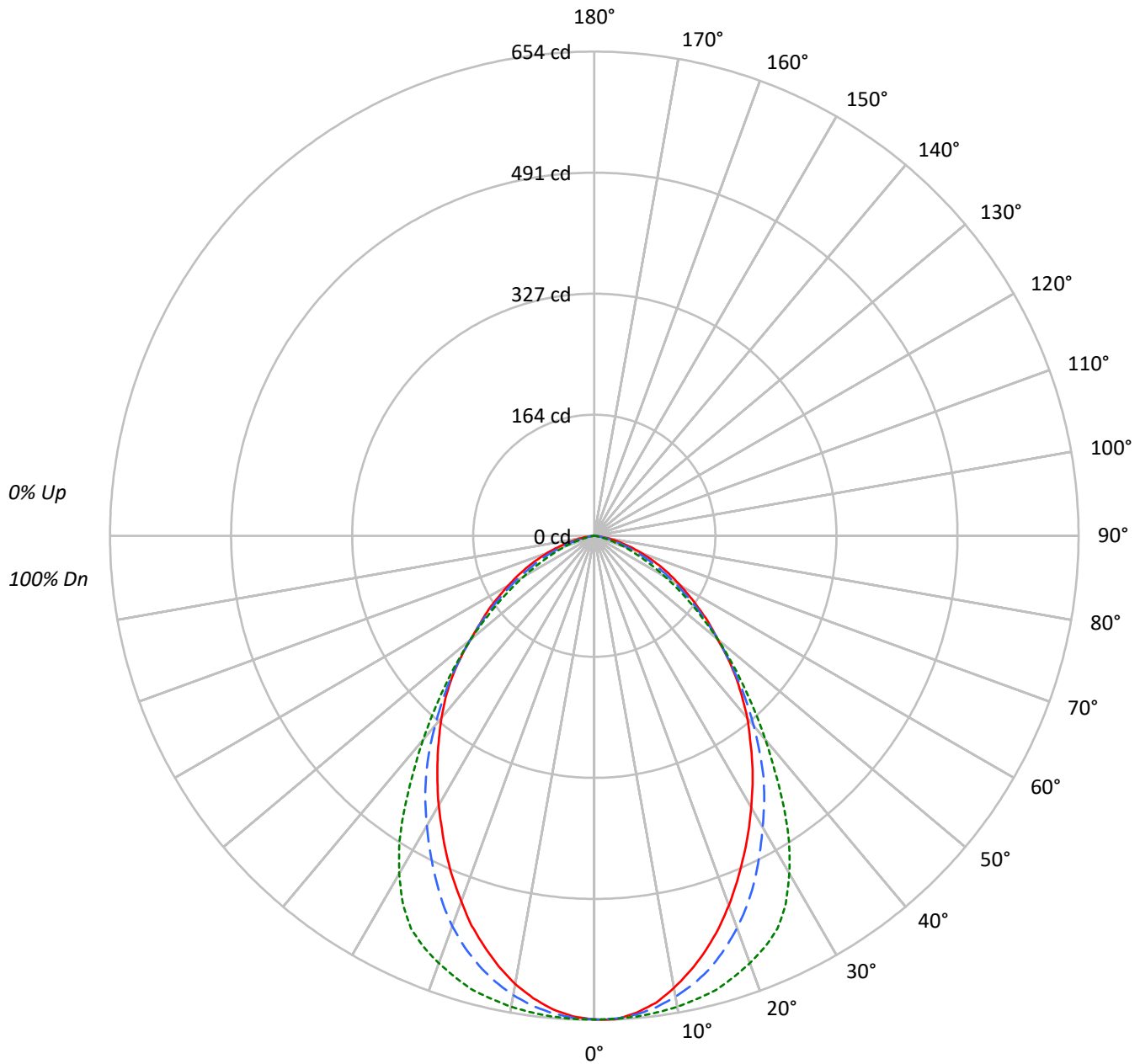
Lumens per Lamp: N/A
Luminaire Lumens: 1200.0 lumens
Efficiency: N/A
Efficacy: 75.9 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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°	80272	80272	80272
5°	79790	80394	79198
10°	77369	80600	76695
15°	73807	80777	73005
20°	69448	80312	68690
25°	64686	79367	64158
30°	60106	74731	59623
35°	55746	66844	55341
40°	51528	57638	51496
45°	46962	49203	47344
50°	41474	41608	41704
55°	37162	34013	37312
60°	32851	27028	32900
65°	28924	20610	28634
70°	23959	14763	23959
75°	18655	8449	17990
80°	12098	2052	11603
85°	4511	705	3383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.3	5.1
10°-20°	169.7	14.1
20°-30°	237.2	19.8
30°-40°	250.2	20.9
40°-50°	212.9	17.7
50°-60°	150.2	12.5
60°-70°	85.1	7.1
70°-80°	30.4	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°	468.2	39.0
0°-40°	718.5	59.9
0°-60°	1081.6	90.1
0°-90°	1200.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1200.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	653	653	653	653	653	
5°	647	649	652	647	642	61
15°	580	605	635	601	574	163
25°	477	513	586	508	473	220
35°	372	398	446	396	369	232
45°	270	274	283	275	272	208
55°	174	168	159	168	174	156
65°	100	85	71	86	98	98
75°	39	27	18	26	38	43
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°	653.4	653.4	653.4	653.4	653.4	653.4	653.4	653.4	653.4	653.4	653.4
2.5°	653.9	652.7	652.7	652.7	652.7	652.7	652.7	652.7	652.7	652.9	652.9
5°	647.0	646.6	646.3	646.3	646.3	646.3	646.6	647.5	648.0	648.8	649.2
7.5°	636.3	635.3	635.8	635.8	636.3	636.8	637.5	638.5	640.0	640.9	642.2
10°	620.2	619.2	620.4	620.9	622.4	623.1	624.3	625.8	628.7	630.2	632.1
12.5°	601.3	600.9	601.3	603.3	604.8	605.7	607.2	610.4	613.3	616.5	619.9
15°	580.3	579.1	579.8	582.3	584.7	586.4	587.7	591.8	595.7	600.6	604.8
17.5°	556.9	555.2	557.1	559.1	562.3	563.7	565.4	570.1	575.4	580.8	585.5
20°	531.2	530.7	532.0	534.6	537.8	539.8	541.2	546.4	551.0	558.3	563.7
22.5°	504.6	505.1	506.0	509.0	511.2	513.9	516.1	520.7	526.1	532.9	539.8
25°	477.2	477.9	479.7	481.6	485.3	486.7	489.4	494.3	499.0	505.3	512.9
27.5°	450.8	451.1	453.0	454.0	457.4	460.6	461.8	467.0	472.3	477.2	483.8
30°	423.7	424.4	425.7	428.3	431.8	433.0	434.5	439.1	443.3	449.4	454.5
32.5°	397.8	397.3	398.8	400.2	404.2	406.4	407.1	412.5	416.1	422.2	427.1
35°	371.7	370.4	372.6	374.1	377.5	379.5	380.5	384.6	388.0	393.2	398.5
37.5°	345.5	346.5	347.5	348.7	350.4	350.9	353.8	354.8	359.2	363.1	366.0
40°	321.3	320.8	320.3	321.6	323.8	324.7	325.0	327.7	328.7	332.6	334.8
42.5°	295.4	295.7	295.4	295.7	296.9	296.9	297.6	299.3	300.1	301.3	304.0
45°	270.3	270.3	269.5	269.8	270.0	269.8	270.0	270.7	272.2	272.2	274.2
47.5°	244.1	243.6	244.6	243.9	243.4	243.1	243.9	243.1	244.6	244.6	245.1
50°	217.0	217.0	218.2	218.0	218.4	217.5	217.7	217.7	218.0	217.7	218.7
52.5°	196.0	195.5	195.0	193.8	194.3	193.3	193.3	193.5	192.8	192.5	191.3
55°	173.5	174.0	173.2	172.8	172.8	171.8	171.5	170.1	169.1	168.4	167.6
57.5°	153.2	153.7	153.5	152.2	150.8	151.0	150.5	149.1	146.9	145.4	144.2
60°	133.7	134.1	133.7	132.4	131.9	131.0	130.7	128.8	127.1	125.1	123.6
62.5°	116.1	116.1	115.8	114.1	112.9	113.1	111.9	110.4	108.2	105.6	103.4
65°	99.5	99.2	98.0	97.3	96.3	95.1	94.3	92.1	90.4	88.2	85.3
67.5°	82.8	82.1	81.6	80.9	78.7	78.4	77.5	75.5	73.1	71.4	68.9
70°	66.7	66.5	65.5	65.5	63.8	63.0	61.6	59.9	57.7	55.2	53.3
72.5°	52.8	52.3	51.3	50.3	48.9	48.4	47.2	45.4	43.5	41.1	38.6
75°	39.3	38.9	38.6	37.4	36.2	34.9	34.5	32.7	30.8	29.1	26.9
77.5°	27.6	27.1	26.4	25.7	24.9	24.2	23.5	22.0	20.3	18.8	16.9
80°	17.1	16.6	16.1	15.9	15.1	14.9	13.9	13.2	11.7	10.8	9.5
82.5°	8.8	8.8	8.3	8.1	7.6	7.3	7.1	6.4	5.6	4.9	4.2
85°	3.2	3.2	2.9	2.7	2.7	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°	653.4	653.4	653.4	653.4	653.4	653.4	653.4	653.4	653.4	653.4	653.4
2.5°	653.1	652.9	653.1	653.1	653.4	653.4	653.4	653.1	653.4	653.1	653.1
5°	649.2	650.0	650.5	650.9	651.2	651.4	651.4	651.7	651.9	651.9	651.7
7.5°	643.1	644.6	646.1	647.0	647.5	648.0	648.8	649.2	649.7	649.5	649.2
10°	635.1	637.5	639.5	641.4	642.4	643.1	644.4	645.3	645.8	646.1	645.3
12.5°	623.6	627.0	630.2	633.4	634.8	635.8	638.2	640.0	640.9	640.9	640.2
15°	609.2	614.1	618.7	622.8	625.3	626.8	630.4	632.9	634.3	635.1	633.8
17.5°	591.8	597.4	603.1	608.4	610.9	613.1	618.2	621.6	624.8	625.3	623.8
20°	569.6	576.7	583.0	589.6	592.3	595.7	601.6	607.2	612.1	614.3	610.1
22.5°	544.7	552.5	558.3	566.4	570.1	573.7	581.3	588.4	596.9	601.6	594.3
25°	518.8	525.4	532.4	540.3	545.4	549.3	558.1	567.1	578.6	585.5	575.2
27.5°	490.9	496.8	505.3	513.9	517.8	522.7	533.2	542.9	553.9	560.1	552.5
30°	462.1	469.4	477.5	485.3	490.9	495.5	504.1	512.4	521.7	526.8	521.2
32.5°	433.5	440.6	447.4	456.0	459.1	463.3	470.9	477.9	485.0	489.7	483.1
35°	403.4	409.8	416.1	422.0	423.5	428.3	434.5	438.6	442.0	445.7	441.3
37.5°	370.7	375.6	378.7	385.1	387.5	388.3	393.2	396.1	399.8	400.5	400.2
40°	337.4	341.8	344.5	348.4	350.4	350.4	353.8	356.5	359.2	359.4	359.2
42.5°	306.4	308.6	310.8	313.3	312.8	315.7	317.2	318.4	320.3	320.3	320.8
45°	275.1	276.8	278.8	279.3	281.2	281.2	282.5	283.0	283.9	283.2	282.2
47.5°	246.1	246.8	247.0	249.2	249.7	248.0	249.5	249.7	249.5	249.5	249.0
50°	218.4	218.9	218.7	218.0	218.2	218.9	218.2	217.2	217.7	217.7	218.2
52.5°	191.6	190.6	190.1	190.1	189.1	189.1	187.9	187.4	187.2	186.2	187.4
55°	166.9	165.4	163.2	162.7	162.0	161.8	160.3	159.1	158.6	158.8	158.6
57.5°	143.2	141.0	139.5	139.0	138.3	136.8	135.1	133.9	133.7	133.2	133.2
60°	121.7	119.2	117.0	114.8	115.1	114.1	112.4	111.7	110.9	110.0	110.7
62.5°	102.1	99.5	97.0	94.8	93.3	92.6	91.4	90.2	89.4	88.7	89.7
65°	82.8	80.6	77.9	75.7	75.0	74.3	73.1	71.1	70.9	70.9	71.4
67.5°	65.5	63.0	60.6	59.1	58.2	57.2	56.7	55.7	55.0	54.5	54.7
70°	50.3	47.9	45.9	44.5	43.7	43.5	41.8	41.5	41.3	41.1	40.8
72.5°	36.7	34.7	33.0	32.0	31.0	30.3	29.8	29.1	28.8	28.8	28.8
75°	25.2	23.7	21.7	20.5	20.0	19.3	18.6	18.1	17.6	17.8	17.8
77.5°	15.1	13.7	12.5	11.5	11.2	10.5	9.8	9.3	8.6	8.6	8.8
80°	8.3	7.1	6.1	5.4	4.9	4.6	3.9	3.7	3.2	2.9	2.9
82.5°	3.7	2.9	2.4	2.2	2.0	1.7	1.5	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°	653.4	653.4	653.4	653.4	653.4	653.4	653.4	653.4	653.4	653.4	653.4
2.5°	652.9	652.9	652.7	652.7	652.7	652.2	652.2	651.9	651.7	651.4	650.9
5°	651.2	650.9	650.5	650.2	650.0	649.2	648.5	648.0	647.3	646.3	645.8
7.5°	648.8	648.0	647.0	646.6	645.8	644.1	642.9	641.7	640.4	638.7	636.8
10°	644.6	643.1	641.7	640.7	639.5	637.3	634.8	632.9	630.2	627.7	625.0
12.5°	638.7	637.0	634.1	632.6	631.2	628.0	624.8	620.6	617.0	613.6	610.4
15°	631.4	628.2	624.8	622.8	620.6	615.5	610.6	606.2	601.3	597.2	592.1
17.5°	620.6	616.0	611.1	608.9	606.0	600.1	594.3	588.2	582.5	577.4	571.0
20°	604.5	599.4	593.0	589.6	587.2	579.4	573.7	566.9	561.0	554.7	547.6
22.5°	585.7	578.6	571.5	566.6	564.0	556.1	548.6	542.5	536.1	528.8	523.6
25°	564.4	555.7	547.1	542.2	538.1	529.8	522.4	516.1	508.2	501.9	496.8
27.5°	540.5	530.5	520.5	515.6	511.7	502.6	494.8	488.2	480.6	475.0	469.6
30°	511.9	502.9	493.3	489.4	484.8	475.5	466.5	460.6	452.3	446.4	440.6
32.5°	476.2	470.4	462.8	457.4	455.0	446.4	438.9	431.8	424.7	420.0	414.2
35°	437.1	432.0	425.7	422.7	419.5	414.2	408.1	402.0	396.3	391.9	386.6
37.5°	397.6	392.4	388.5	385.3	383.4	378.5	374.8	370.2	366.3	362.1	359.2
40°	356.5	355.0	350.9	349.4	348.9	343.6	340.4	336.7	334.3	331.8	330.1
42.5°	320.1	317.7	314.5	314.7	313.3	310.3	308.1	305.7	304.0	302.8	301.0
45°	284.2	282.2	280.8	282.0	279.5	278.6	276.8	276.6	275.4	273.2	272.5
47.5°	250.0	249.7	250.0	249.2	248.7	248.3	248.5	247.3	246.1	245.3	244.4
50°	218.7	218.9	219.4	220.2	218.4	219.2	218.9	218.7	218.7	218.0	218.4
52.5°	188.4	188.6	189.1	189.9	190.1	190.1	190.8	191.3	192.3	193.5	193.5
55°	159.8	161.5	162.5	163.7	163.0	164.4	165.2	167.4	168.1	168.1	169.1
57.5°	134.4	136.1	136.8	138.3	138.8	140.0	142.0	143.2	144.9	146.4	147.8
60°	111.2	111.9	113.9	116.1	115.6	118.5	120.0	121.9	124.1	125.1	127.1
62.5°	90.4	91.4	92.9	93.6	95.3	96.8	100.2	102.1	104.1	106.5	108.5
65°	71.8	72.8	74.3	75.7	76.5	78.7	80.4	83.8	85.5	88.2	90.4
67.5°	55.0	56.4	57.7	58.6	59.1	61.3	64.0	65.5	68.7	71.4	73.1
70°	41.1	42.3	43.7	43.5	44.5	46.2	48.1	50.3	52.8	55.2	57.2
72.5°	28.6	29.8	30.8	31.0	32.0	33.2	34.7	36.4	38.4	40.8	43.5
75°	18.1	18.3	19.3	19.8	20.3	21.7	23.0	24.7	26.4	28.3	30.1
77.5°	9.0	9.8	10.3	10.8	11.0	12.2	13.4	14.9	16.4	18.3	20.0
80°	3.4	3.7	4.4	4.6	5.1	5.9	6.8	7.6	8.8	10.3	11.2
82.5°	1.2	1.5	1.7	1.7	2.0	2.4	2.7	3.4	4.2	4.6	5.1
85°	0.5	0.5	0.5	0.5	0.5	0.7	0.7	1.0	1.2	1.5	1.5
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°	653.4	653.4	653.4	653.4	653.4	653.4	653.4	653.4
2.5°	650.7	650.7	650.5	650.2	650.2	650.2	650.0	650.0
5°	644.8	644.1	643.9	643.4	643.1	642.9	642.2	642.2
7.5°	635.3	634.3	633.6	632.9	631.9	631.2	631.2	630.2
10°	622.6	620.6	619.7	618.7	617.5	616.0	615.5	614.8
12.5°	607.2	603.3	602.3	600.6	598.7	597.7	596.0	596.0
15°	588.2	584.0	581.8	580.8	578.4	576.7	575.9	574.0
17.5°	565.9	562.7	559.3	557.9	555.2	553.0	552.0	551.7
20°	543.4	538.3	536.1	533.9	530.7	528.8	527.3	525.4
22.5°	517.5	512.9	509.7	508.2	505.6	502.1	499.7	499.7
25°	490.2	486.0	484.3	481.1	477.9	476.7	473.8	473.3
27.5°	464.0	459.9	456.4	454.7	451.1	449.4	446.9	445.9
30°	436.9	432.0	429.6	429.3	424.9	423.2	421.3	420.3
32.5°	409.8	405.6	403.2	401.7	399.8	396.8	395.1	394.1
35°	382.9	380.2	378.0	376.3	373.1	371.7	370.2	369.0
37.5°	354.8	352.4	351.4	349.9	348.4	345.8	345.3	344.3
40°	327.7	324.5	324.5	323.5	322.1	321.8	321.1	321.1
42.5°	299.3	297.9	297.6	297.9	296.9	296.4	295.7	297.4
45°	271.2	272.0	270.7	271.0	270.5	271.5	271.5	272.5
47.5°	245.3	244.4	244.8	245.3	246.1	246.1	245.8	245.6
50°	217.7	218.7	219.7	218.4	218.9	219.2	218.0	218.2
52.5°	194.0	194.3	195.0	194.3	195.0	194.7	195.2	194.3
55°	171.0	171.0	172.0	172.3	172.5	173.2	173.5	174.2
57.5°	148.8	150.0	151.3	151.0	152.0	153.0	152.2	153.0
60°	129.5	130.5	131.7	132.2	132.9	133.4	133.4	133.9
62.5°	110.0	111.9	112.9	113.9	113.9	114.8	115.8	116.1
65°	92.4	94.6	95.3	96.0	96.5	97.5	98.7	98.5
67.5°	75.7	77.2	78.2	78.7	80.1	80.6	81.6	82.6
70°	59.4	61.3	62.1	63.0	64.3	65.2	66.2	66.7
72.5°	45.4	46.9	47.4	48.4	49.6	50.6	51.1	51.8
75°	31.8	34.2	34.5	35.2	36.2	37.4	38.1	37.9
77.5°	21.0	22.7	23.0	23.9	24.9	25.9	26.1	26.4
80°	12.5	13.4	13.7	14.2	14.9	15.4	15.9	16.4
82.5°	5.9	6.4	6.8	6.8	7.3	7.8	7.8	8.1
85°	2.0	2.0	2.2	2.2	2.4	2.4	2.7	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)