

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: P856886

Luminaire Tested: **LX4C10D010 EX4C109030 4LBLWWH**

Issue Date: 2/14/2022



Test Information

Test Method: LM-79-08
Report Number: P856886
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-2)
Test Lab: INNOVATION CENTER
Issue Date: 2/14/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LX4C10D010 EX4C109030 4LBLWWH
Description: 4 INCH 1000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LRLWW TRIM WITH H FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

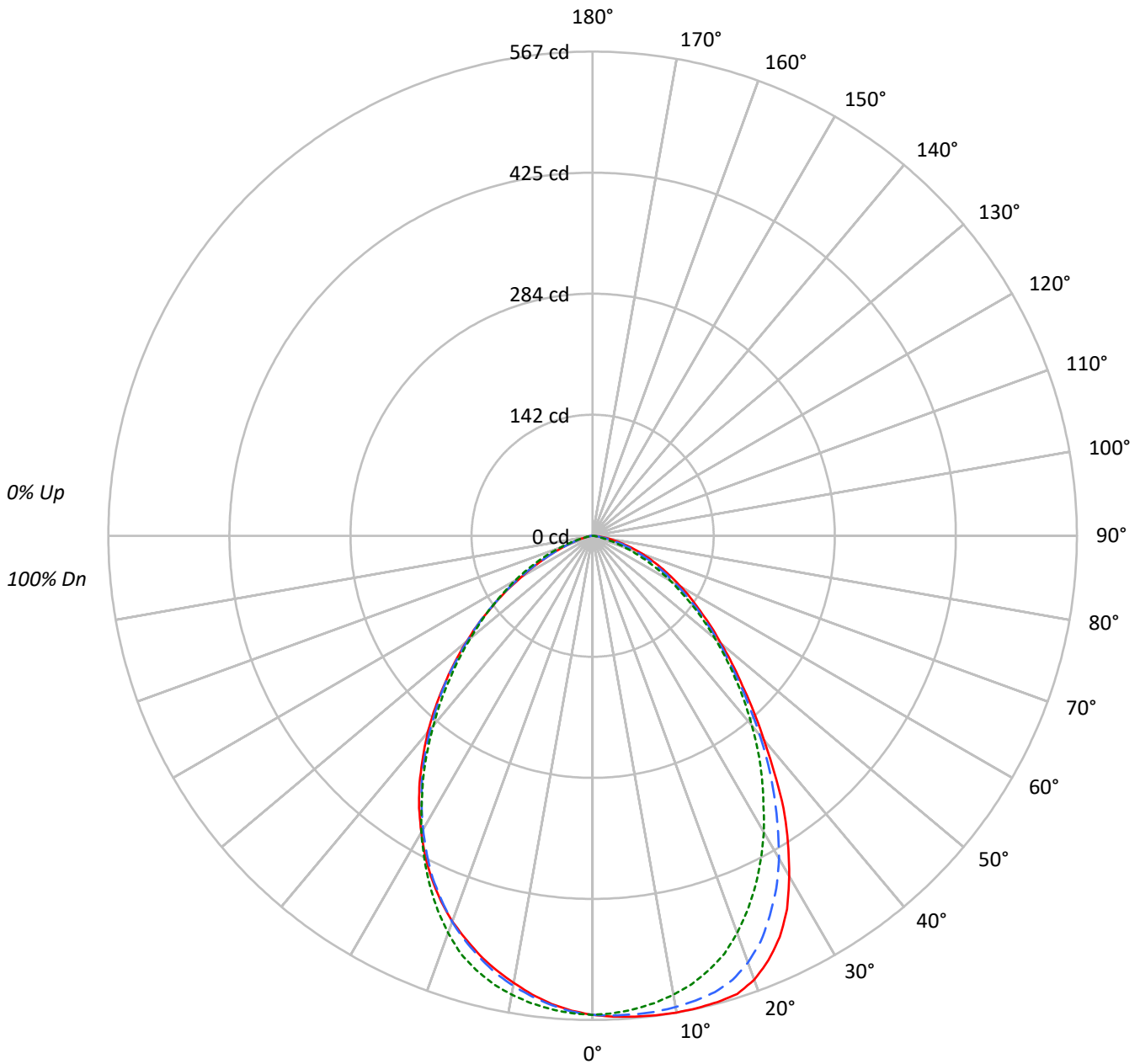
Lumens per Lamp: N/A
Luminaire Lumens: 1057.4 lumens
Efficiency: N/A
Efficacy: 62.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 17
Input Voltage (V):
Input Current (A_{in}): 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									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
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	94	92	90	88																			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77																			
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70	68																			
4	88	78	70	64	86	77	69	64	74	68	63	72	67	62	70	65	62	60																			
5	82	71	63	57	80	69	62	57	67	61	56	66	60	55	64	59	55	53																			
6	76	64	56	51	74	63	56	50	62	55	50	60	54	50	59	53	49	47																			
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43																			
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	40	39																			
9	62	50	43	38	61	50	42	37	49	42	37	47	41	37	47	41	37	35																			
10	59	47	39	34	58	46	39	34	45	39	34	44	38	34	43	38	34	32																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	68933	68933	68933
5°	69714	68641	67889
10°	70720	68063	66329
15°	71899	66964	64738
20°	72337	64689	62833
25°	70271	61203	60254
30°	65298	56885	56900
35°	58446	51832	52957
40°	50037	46460	48160
45°	43088	40986	42514
50°	37442	35683	36754
55°	32942	30672	30415
60°	29313	25627	23588
65°	25698	20523	17035
70°	22091	14512	11530
75°	17895	8402	6740
80°	12805	3679	3396
85°	4934	1551	1551



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.9	5.0
10°-20°	149.7	14.2
20°-30°	213.7	20.2
30°-40°	223.6	21.1
40°-50°	187.3	17.7
50°-60°	131.1	12.4
60°-70°	71.4	6.8
70°-80°	24.8	2.3
80°-90°	2.9	0.3
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°	416.3	39.4
0°-40°	639.9	60.5
0°-60°	958.4	90.6
0°-90°	1057.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1057.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	561	561	561	561	561	
5°	565	563	557	552	550	54
15°	565	553	526	511	509	160
25°	518	491	452	443	444	237
35°	390	370	346	348	353	242
45°	248	242	236	244	245	193
55°	154	149	143	143	142	139
65°	88	81	71	59	59	88
75°	38	31	18	14	14	41
85°	4	2	1	1	1	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°	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1
2.5°	563.7	563.0	563.3	563.3	563.3	563.0	563.3	563.0	563.0	562.7	562.3
5°	565.3	564.9	564.9	564.9	564.5	564.2	564.2	564.1	563.7	563.4	562.6
7.5°	566.3	565.8	565.8	565.7	565.4	565.3	565.0	564.2	563.7	563.3	562.2
10°	566.9	566.3	566.3	565.8	565.4	565.3	564.9	563.8	563.0	561.9	560.4
12.5°	566.5	565.8	565.7	565.3	564.2	563.8	563.4	562.3	560.8	559.4	557.4
15°	565.3	564.9	564.2	563.7	562.6	561.9	561.5	559.8	557.8	555.7	553.3
17.5°	562.6	561.9	561.1	560.3	558.7	558.0	557.0	554.8	552.0	549.0	545.3
20°	553.3	552.8	552.0	550.5	548.2	547.3	545.7	543.0	539.2	535.6	531.7
22.5°	538.0	537.4	536.1	534.7	532.5	531.0	529.8	526.0	521.8	518.0	514.3
25°	518.4	517.8	515.9	514.3	512.1	509.4	508.2	505.2	501.1	496.2	490.8
27.5°	493.1	490.9	490.3	488.4	485.2	484.2	482.3	478.4	474.6	470.1	465.7
30°	460.3	460.3	459.1	458.1	455.1	454.3	452.0	448.0	445.8	439.8	436.4
32.5°	425.6	425.2	424.1	423.4	421.7	420.2	418.0	415.8	411.2	408.1	403.3
35°	389.7	387.1	387.6	386.3	385.2	383.4	383.3	380.9	376.6	374.9	370.5
37.5°	348.9	347.9	349.3	347.5	346.4	346.6	344.8	343.3	341.7	338.6	337.7
40°	312.0	313.0	312.7	310.9	311.9	310.8	309.0	307.5	306.7	304.8	304.0
42.5°	279.0	277.7	277.3	277.3	277.5	277.5	276.7	275.6	275.6	273.7	271.6
45°	248.0	248.0	247.5	248.8	246.9	246.9	246.3	246.0	245.1	244.7	242.4
47.5°	221.2	220.9	220.8	220.5	220.2	220.2	219.0	217.9	217.8	216.5	215.1
50°	195.9	197.2	196.8	195.7	195.3	195.5	194.6	194.1	193.8	191.5	191.8
52.5°	174.9	174.6	175.0	174.4	173.3	173.4	172.6	171.8	171.0	169.9	168.9
55°	153.8	154.9	154.5	153.8	153.7	153.3	152.6	151.5	151.4	148.8	148.7
57.5°	136.4	136.2	135.7	134.7	134.5	133.8	133.8	132.9	131.7	130.3	129.2
60°	119.3	119.3	118.6	118.5	117.6	117.4	117.2	116.3	114.8	113.7	112.1
62.5°	102.9	103.4	102.9	102.3	101.6	100.8	100.4	99.7	98.5	97.3	95.8
65°	88.4	88.3	88.0	87.2	87.0	86.1	85.9	84.6	83.3	82.4	80.8
67.5°	74.7	74.1	74.1	73.6	73.2	72.5	72.1	70.7	69.2	68.4	66.7
70°	61.5	61.1	61.1	61.1	60.0	59.3	59.2	58.5	56.4	55.4	53.7
72.5°	49.4	49.1	49.0	48.3	47.6	47.6	46.8	45.6	44.5	43.4	42.0
75°	37.7	38.1	37.7	36.9	36.6	36.2	35.6	34.5	33.5	32.1	30.6
77.5°	27.6	27.2	26.8	26.8	26.3	25.4	25.2	24.4	23.1	22.3	20.8
80°	18.1	17.9	17.4	17.0	16.9	16.6	16.4	15.6	14.2	13.6	12.4
82.5°	9.9	9.8	9.8	9.5	8.7	8.7	8.6	7.8	7.1	6.7	6.0
85°	3.5	3.5	3.5	3.3	3.3	3.3	3.1	2.7	2.6	2.3	1.9
87.5°	0.4	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3
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°	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1
2.5°	561.9	561.5	561.2	561.1	560.8	560.7	560.4	560.0	559.8	559.6	559.2
5°	561.9	561.1	560.7	560.0	559.6	559.2	558.4	557.8	557.2	556.6	555.9
7.5°	561.1	559.8	558.8	557.6	557.2	556.6	555.2	554.4	553.3	552.0	550.5
10°	558.8	557.4	555.7	554.0	553.3	552.1	550.5	549.0	547.3	545.6	544.1
12.5°	555.5	553.2	550.9	548.6	547.3	546.1	543.8	541.6	539.5	537.6	535.0
15°	550.2	547.5	544.6	541.5	539.9	538.6	535.1	532.5	529.1	526.5	524.1
17.5°	541.9	537.6	534.0	530.1	527.8	526.4	523.3	519.2	515.9	513.2	510.1
20°	527.4	523.3	518.6	514.0	511.7	509.7	505.3	501.1	497.8	494.8	491.6
22.5°	508.4	503.3	499.9	494.3	492.3	489.8	484.8	480.7	477.2	474.2	471.2
25°	485.3	480.7	476.0	470.9	468.5	465.7	461.4	457.3	455.0	451.5	447.8
27.5°	458.8	455.1	449.3	444.8	442.5	440.2	436.2	432.4	429.0	426.6	423.3
30°	430.8	426.4	421.1	416.5	415.1	412.7	408.9	406.1	402.5	401.0	399.5
32.5°	399.9	395.0	390.9	388.0	385.4	383.3	381.3	376.8	376.2	372.3	371.9
35°	366.2	364.1	360.3	357.7	355.7	354.2	350.8	348.7	346.4	345.6	344.1
37.5°	334.6	331.9	328.5	326.0	324.5	324.4	322.0	320.6	319.0	318.1	316.3
40°	301.3	300.2	297.1	296.7	294.3	294.2	292.8	291.2	289.7	289.7	290.0
42.5°	270.7	269.3	268.0	266.5	265.2	265.2	264.6	264.1	263.7	263.1	264.1
45°	242.0	240.2	239.3	237.8	238.4	237.1	236.7	236.7	236.1	235.9	237.4
47.5°	215.1	213.3	212.3	211.9	211.9	212.2	210.3	210.8	210.7	211.1	211.8
50°	190.7	189.1	187.7	187.7	188.0	187.1	186.2	186.9	186.2	186.7	188.2
52.5°	168.0	166.4	165.7	165.7	164.4	164.3	164.7	163.9	164.0	164.3	165.1
55°	147.2	146.1	145.1	143.9	144.2	143.7	142.8	142.7	143.1	143.2	144.3
57.5°	128.4	126.8	125.4	124.9	124.5	124.5	123.5	123.2	123.6	122.7	122.7
60°	110.6	109.6	107.6	107.0	107.0	106.0	105.1	105.5	104.5	104.3	104.5
62.5°	93.9	93.3	91.9	90.6	90.2	89.8	88.7	88.3	87.9	87.0	85.6
65°	79.3	77.8	76.4	75.5	74.9	73.7	73.2	72.2	71.0	70.6	69.2
67.5°	65.0	63.5	61.9	61.2	60.7	60.0	58.9	57.8	56.4	54.6	53.1
70°	52.2	50.2	49.4	47.6	47.2	46.4	44.9	43.8	42.3	40.4	38.9
72.5°	40.0	38.6	37.3	35.8	34.8	34.1	32.9	31.0	29.4	28.3	26.8
75°	28.7	28.0	26.3	24.6	24.2	23.4	21.9	20.8	19.3	17.7	16.4
77.5°	19.3	18.1	17.0	15.6	15.1	14.2	13.3	12.4	11.4	10.3	9.5
80°	11.4	10.3	9.8	8.6	8.2	7.8	7.1	6.3	5.6	5.2	5.0
82.5°	5.6	4.8	4.6	3.9	3.7	3.5	3.1	2.7	2.3	2.3	2.3
85°	1.9	1.5	1.5	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
87.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
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°	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1
2.5°	558.8	558.7	558.4	558.2	558.2	558.0	558.0	557.8	557.8	557.6	557.6
5°	555.1	554.4	554.0	553.6	553.6	552.8	552.4	552.0	551.7	551.7	551.3
7.5°	549.7	548.8	548.0	547.3	547.1	546.0	545.2	545.2	544.2	543.8	543.4
10°	542.6	541.0	539.7	539.1	538.2	537.6	536.5	535.9	535.1	534.0	533.9
12.5°	532.8	531.7	529.8	528.9	528.5	527.2	525.5	524.6	524.5	523.5	522.9
15°	521.8	519.5	517.8	516.6	516.6	514.4	513.6	512.4	511.3	510.8	510.5
17.5°	507.6	505.2	503.4	501.9	501.5	499.9	498.4	498.0	497.0	497.4	496.3
20°	489.3	487.2	486.0	484.1	484.1	483.0	482.6	481.4	481.0	480.6	481.0
22.5°	469.6	467.2	465.1	464.9	464.9	463.3	463.0	462.9	462.1	462.6	462.5
25°	446.4	444.8	443.4	443.3	443.3	442.5	441.5	441.9	442.6	442.5	443.0
27.5°	422.5	420.7	420.3	420.2	419.7	419.5	419.9	419.9	420.6	421.4	422.2
30°	396.6	396.2	395.5	395.4	395.0	396.0	396.4	397.0	396.9	398.1	399.0
32.5°	370.8	369.9	369.7	370.1	370.8	370.5	371.9	372.3	372.7	374.2	374.9
35°	344.6	344.4	344.0	344.0	344.1	345.9	345.9	347.5	348.3	348.7	350.4
37.5°	316.6	317.5	317.9	318.5	318.7	319.4	319.8	321.3	322.1	323.0	324.0
40°	290.8	290.4	292.3	291.1	291.5	293.5	294.3	294.2	295.4	296.7	297.5
42.5°	263.6	264.1	264.6	265.1	266.1	266.3	267.3	268.8	269.3	270.8	271.2
45°	236.9	237.1	238.0	238.9	239.4	241.3	241.7	242.4	243.6	243.6	244.3
47.5°	211.9	212.7	212.7	214.1	215.1	214.9	216.5	216.9	216.7	217.8	218.2
50°	188.0	189.2	189.1	189.9	190.3	190.6	191.8	192.3	191.4	192.6	192.7
52.5°	165.1	165.7	166.6	166.8	166.4	167.4	167.0	167.9	167.6	168.4	167.6
55°	144.2	143.9	143.9	144.3	143.9	144.3	144.7	143.9	143.2	144.2	143.9
57.5°	123.2	123.2	122.8	123.5	122.8	122.1	122.0	121.3	120.5	120.5	120.4
60°	103.6	103.1	102.3	102.0	102.0	100.9	100.5	99.7	99.7	98.9	98.0
62.5°	85.2	84.2	83.5	83.5	83.1	82.0	80.1	78.8	78.3	77.0	76.8
65°	67.9	66.8	66.2	65.0	63.9	63.5	61.5	60.0	59.3	58.1	58.2
67.5°	52.2	50.6	48.6	47.6	47.1	45.6	44.9	43.8	43.1	43.1	43.1
70°	37.5	36.0	34.1	33.5	33.0	31.7	31.0	30.9	31.4	31.3	31.4
72.5°	25.2	23.8	22.9	22.4	22.0	21.5	21.9	22.0	21.6	21.9	22.0
75°	15.4	14.9	14.2	14.0	14.0	14.2	14.0	14.0	14.2	14.2	14.4
77.5°	8.7	8.3	8.3	8.2	8.6	8.3	8.3	8.3	8.6	8.6	8.6
80°	4.8	4.8	4.8	4.8	5.0	4.8	5.0	5.0	5.0	5.0	5.0
82.5°	2.3	2.3	2.3	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.3
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
87.5°	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3
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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CATALOG NUMBER: LX4C10D010 EX4C109030 4LBLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	561.1	561.1	561.1	561.1	561.1	561.1	561.1	561.1
2.5°	557.2	557.2	557.2	556.7	557.0	557.0	556.7	556.7
5°	551.2	550.9	550.5	550.5	550.1	550.5	550.2	550.5
7.5°	543.0	543.0	542.3	542.3	542.2	541.9	541.6	541.9
10°	533.2	533.2	532.8	532.5	532.8	532.0	532.0	531.7
12.5°	522.5	521.9	521.5	521.8	521.5	521.0	520.7	521.0
15°	509.9	509.3	509.4	508.9	508.9	508.6	509.0	509.0
17.5°	496.2	495.8	495.3	495.5	495.1	495.3	495.1	494.8
20°	480.7	480.6	480.6	479.7	479.9	479.7	479.9	480.6
22.5°	463.0	462.9	463.0	462.5	462.9	462.9	463.6	463.6
25°	443.7	443.4	444.0	444.1	444.4	444.9	444.4	444.5
27.5°	422.1	422.6	423.4	423.7	424.5	423.8	423.4	424.1
30°	400.3	400.3	400.1	401.0	401.5	402.2	401.1	401.1
32.5°	375.3	376.4	376.4	376.6	377.2	377.2	377.2	378.1
35°	351.2	352.0	352.3	351.2	351.6	351.5	353.1	353.1
37.5°	324.5	324.5	324.8	326.3	326.3	325.6	326.0	326.0
40°	299.1	299.4	298.4	298.9	299.9	299.5	299.9	300.3
42.5°	271.2	272.7	271.9	272.3	272.2	272.3	272.6	272.6
45°	244.7	245.1	245.1	245.3	245.8	246.3	244.9	244.7
47.5°	218.8	219.0	219.7	218.6	219.8	218.6	219.8	218.3
50°	192.7	193.7	193.0	193.4	192.7	192.7	192.6	192.3
52.5°	167.9	167.6	167.6	167.4	167.4	167.9	167.4	168.0
55°	143.1	143.2	142.8	142.7	142.4	143.1	142.4	142.0
57.5°	119.6	120.0	119.0	119.6	118.1	118.6	118.9	119.0
60°	97.8	97.0	97.0	96.2	96.2	96.9	96.0	96.0
62.5°	75.8	76.2	75.5	76.4	76.4	77.3	76.8	77.3
65°	58.1	58.2	58.5	58.5	58.5	59.7	59.3	58.6
67.5°	43.8	44.0	44.2	44.0	44.7	44.2	44.2	44.5
70°	31.7	32.0	32.1	32.1	32.0	32.1	32.1	32.1
72.5°	22.0	22.3	22.0	22.3	22.4	22.3	22.3	22.4
75°	14.4	14.4	14.2	14.2	14.2	14.2	14.4	14.2
77.5°	8.3	8.6	8.3	8.6	8.6	8.6	8.6	8.6
80°	5.0	5.0	5.0	4.8	5.0	5.0	5.0	4.8
82.5°	2.6	2.6	2.3	2.3	2.6	2.6	2.6	2.6
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
87.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
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)