

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: P856720

Luminaire Tested: **LX4C10D010 EX4C109030 4LBLWWH**

Issue Date: 2/14/2022

Test Information

Test Method: LM-79-08
Report Number: P856720
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
Light Source: -
Ballast/Driver: -

Summary

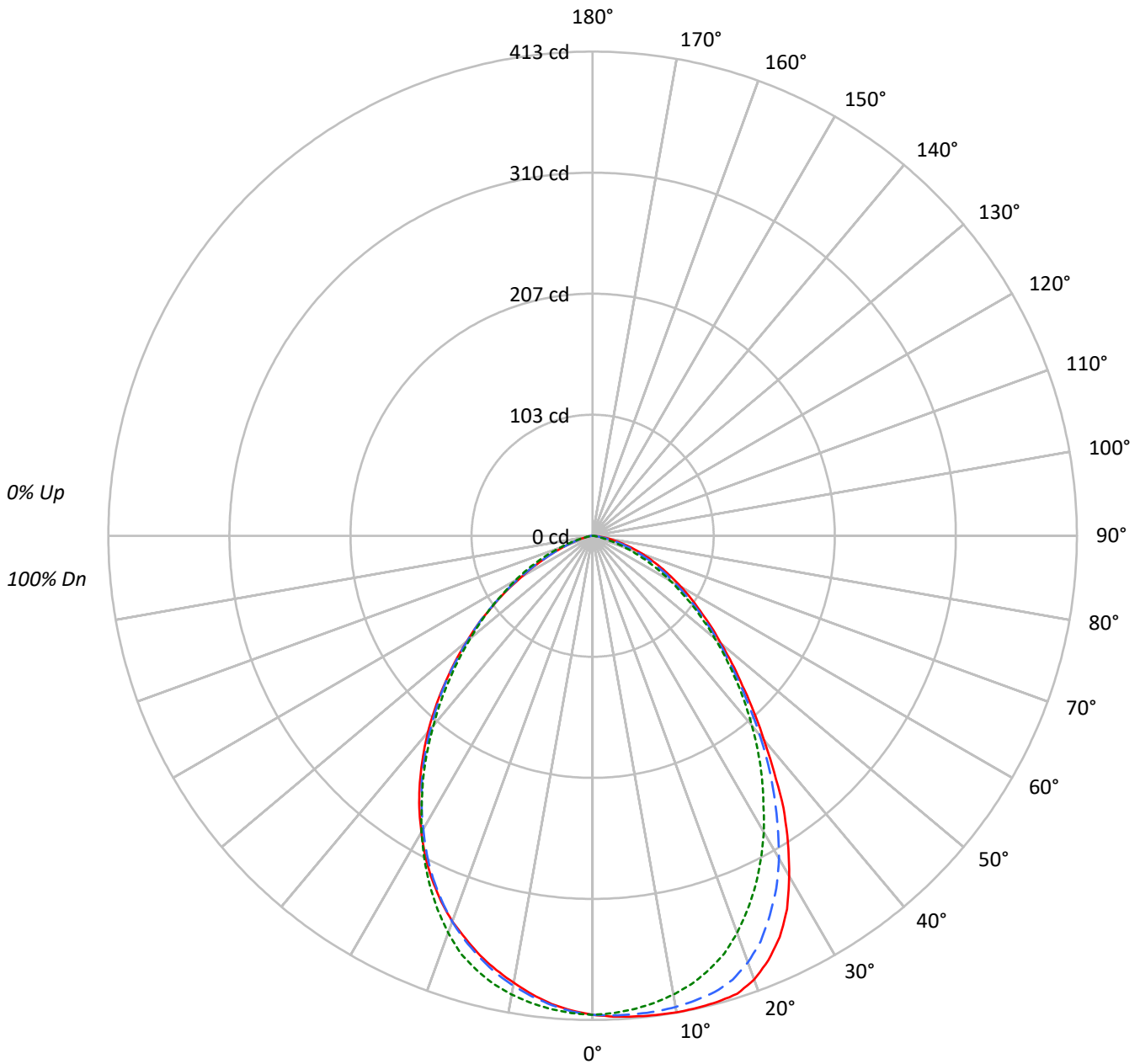
Lumens per Lamp: N/A
Luminaire Lumens: 770.0 lumens
Efficiency: N/A
Efficacy: 78.6 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.09 / 1.17
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.8
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	48	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°	50198	50198	50198
5°	50760	49983	49440
10°	51496	49563	48303
15°	52350	48764	47148
20°	52674	47105	45758
25°	51172	44570	43879
30°	47551	41423	41437
35°	42563	37749	38559
40°	36437	33839	35074
45°	31378	29849	30961
50°	27274	25974	26758
55°	23989	22340	22147
60°	21352	18649	17175
65°	18721	14942	12413
70°	16092	10560	8405
75°	13053	6123	4937
80°	9339	2688	2476
85°	3524	1128	1128



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.5	5.0
10°-20°	109.0	14.2
20°-30°	155.6	20.2
30°-40°	162.8	21.1
40°-50°	136.4	17.7
50°-60°	95.5	12.4
60°-70°	52.0	6.8
70°-80°	18.0	2.3
80°-90°	2.1	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°	303.2	39.4
0°-40°	466.0	60.5
0°-60°	697.9	90.6
0°-90°	770.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	770.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	409	409	409	409	409	
5°	412	410	405	402	401	39
15°	412	403	383	372	371	116
25°	378	357	329	322	324	172
35°	284	270	252	254	257	176
45°	181	176	172	177	178	140
55°	112	108	104	104	103	101
65°	64	59	51	43	43	64
75°	28	22	13	10	10	30
85°	2	1	1	1	1	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°	408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6
2.5°	410.5	410.0	410.2	410.2	410.2	410.0	410.2	410.0	410.0	409.8	409.5
5°	411.6	411.3	411.3	411.3	411.1	410.9	410.9	410.8	410.5	410.3	409.7
7.5°	412.4	412.0	412.0	411.9	411.7	411.6	411.4	410.9	410.5	410.2	409.4
10°	412.8	412.4	412.4	412.0	411.7	411.6	411.3	410.6	410.0	409.2	408.1
12.5°	412.5	412.0	411.9	411.6	410.9	410.6	410.3	409.5	408.4	407.3	405.9
15°	411.6	411.3	410.9	410.5	409.7	409.2	408.9	407.6	406.2	404.7	402.9
17.5°	409.7	409.2	408.6	408.0	406.9	406.4	405.6	404.0	402.0	399.8	397.1
20°	402.9	402.6	402.0	400.9	399.2	398.5	397.4	395.4	392.7	390.0	387.2
22.5°	391.8	391.3	390.4	389.4	387.8	386.7	385.8	383.0	380.0	377.2	374.5
25°	377.5	377.0	375.7	374.5	372.9	371.0	370.1	367.9	364.9	361.3	357.4
27.5°	359.1	357.5	357.0	355.6	353.3	352.6	351.2	348.4	345.6	342.4	339.1
30°	335.2	335.2	334.3	333.6	331.4	330.8	329.2	326.2	324.7	320.3	317.8
32.5°	309.9	309.6	308.8	308.3	307.1	306.0	304.4	302.8	299.4	297.2	293.7
35°	283.8	281.9	282.2	281.3	280.5	279.2	279.1	277.4	274.2	273.0	269.8
37.5°	254.1	253.3	254.4	253.0	252.2	252.4	251.1	250.0	248.8	246.6	245.9
40°	227.2	227.9	227.7	226.4	227.1	226.3	225.0	223.9	223.3	221.9	221.4
42.5°	203.2	202.2	201.9	201.9	202.1	202.1	201.5	200.7	200.7	199.3	197.8
45°	180.6	180.6	180.2	181.2	179.8	179.8	179.3	179.1	178.5	178.2	176.5
47.5°	161.1	160.9	160.8	160.6	160.4	160.4	159.5	158.7	158.6	157.6	156.7
50°	142.7	143.6	143.3	142.5	142.2	142.4	141.7	141.3	141.1	139.5	139.7
52.5°	127.3	127.1	127.4	127.0	126.2	126.3	125.7	125.1	124.5	123.7	123.0
55°	112.0	112.8	112.5	112.0	111.9	111.6	111.1	110.3	110.2	108.4	108.3
57.5°	99.3	99.2	98.8	98.1	97.9	97.4	97.4	96.8	95.9	94.9	94.1
60°	86.9	86.9	86.4	86.3	85.6	85.5	85.3	84.7	83.6	82.8	81.6
62.5°	75.0	75.3	75.0	74.5	74.0	73.4	73.1	72.6	71.7	70.9	69.8
65°	64.4	64.3	64.1	63.5	63.3	62.7	62.5	61.6	60.7	60.0	58.8
67.5°	54.4	53.9	53.9	53.6	53.3	52.8	52.5	51.5	50.4	49.8	48.6
70°	44.8	44.5	44.5	44.5	43.7	43.2	43.1	42.6	41.0	40.4	39.1
72.5°	36.0	35.8	35.7	35.2	34.7	34.7	34.1	33.2	32.4	31.6	30.6
75°	27.5	27.8	27.5	26.9	26.7	26.4	25.9	25.1	24.4	23.4	22.3
77.5°	20.1	19.8	19.5	19.5	19.2	18.5	18.4	17.8	16.8	16.2	15.1
80°	13.2	13.0	12.7	12.4	12.3	12.1	11.9	11.3	10.4	9.9	9.0
82.5°	7.2	7.1	7.1	6.9	6.4	6.4	6.3	5.7	5.2	4.9	4.4
85°	2.5	2.5	2.5	2.4	2.4	2.4	2.2	2.0	1.9	1.7	1.4
87.5°	0.3	0.2	0.3	0.2	0.3	0.2	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	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°	408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6
2.5°	409.2	408.9	408.7	408.6	408.4	408.3	408.1	407.8	407.6	407.5	407.2
5°	409.2	408.6	408.3	407.8	407.5	407.2	406.7	406.2	405.8	405.3	404.8
7.5°	408.6	407.6	407.0	406.1	405.8	405.3	404.3	403.7	402.9	402.0	400.9
10°	407.0	405.9	404.7	403.4	402.9	402.1	400.9	399.8	398.5	397.3	396.2
12.5°	404.5	402.8	401.2	399.5	398.5	397.7	396.0	394.4	392.9	391.5	389.6
15°	400.7	398.7	396.6	394.3	393.2	392.2	389.7	387.8	385.3	383.4	381.6
17.5°	394.6	391.5	388.9	386.0	384.4	383.3	381.1	378.1	375.7	373.7	371.5
20°	384.1	381.1	377.6	374.3	372.6	371.2	368.0	364.9	362.5	360.3	358.0
22.5°	370.2	366.5	364.0	359.9	358.5	356.7	353.0	350.1	347.5	345.3	343.1
25°	353.4	350.1	346.7	342.9	341.2	339.1	336.0	333.0	331.3	328.8	326.1
27.5°	334.1	331.4	327.2	323.9	322.2	320.6	317.6	314.9	312.4	310.7	308.2
30°	313.7	310.5	306.7	303.3	302.3	300.5	297.8	295.7	293.1	292.0	290.9
32.5°	291.2	287.6	284.7	282.5	280.7	279.1	277.7	274.4	273.9	271.1	270.8
35°	266.7	265.1	262.4	260.5	259.0	257.9	255.5	253.9	252.2	251.7	250.6
37.5°	243.6	241.7	239.2	237.4	236.3	236.2	234.5	233.5	232.3	231.6	230.4
40°	219.4	218.6	216.4	216.1	214.3	214.2	213.2	212.1	211.0	211.0	211.2
42.5°	197.1	196.1	195.2	194.1	193.1	193.1	192.7	192.3	192.0	191.6	192.3
45°	176.2	174.9	174.3	173.2	173.6	172.7	172.4	172.4	171.9	171.8	172.9
47.5°	156.7	155.3	154.6	154.3	154.3	154.5	153.1	153.5	153.4	153.7	154.2
50°	138.9	137.7	136.7	136.7	136.9	136.2	135.6	136.1	135.6	135.9	137.0
52.5°	122.4	121.2	120.7	120.7	119.7	119.6	119.9	119.3	119.4	119.6	120.2
55°	107.2	106.4	105.6	104.8	105.0	104.7	104.0	103.9	104.2	104.3	105.1
57.5°	93.5	92.4	91.3	91.0	90.7	90.7	89.9	89.7	90.0	89.3	89.3
60°	80.5	79.8	78.4	77.9	77.9	77.2	76.5	76.8	76.1	75.9	76.1
62.5°	68.4	67.9	66.9	66.0	65.7	65.4	64.6	64.3	64.0	63.3	62.4
65°	57.8	56.7	55.6	55.0	54.5	53.7	53.3	52.6	51.7	51.4	50.4
67.5°	47.3	46.2	45.1	44.6	44.2	43.7	42.9	42.1	41.0	39.8	38.7
70°	38.0	36.6	36.0	34.7	34.4	33.8	32.7	31.9	30.8	29.4	28.3
72.5°	29.1	28.1	27.2	26.1	25.3	24.8	23.9	22.6	21.4	20.6	19.5
75°	20.9	20.4	19.2	17.9	17.6	17.0	15.9	15.1	14.1	12.9	11.9
77.5°	14.1	13.2	12.4	11.3	11.0	10.4	9.7	9.0	8.3	7.5	6.9
80°	8.3	7.5	7.1	6.3	6.0	5.7	5.2	4.6	4.1	3.8	3.6
82.5°	4.1	3.5	3.3	2.8	2.7	2.5	2.2	2.0	1.7	1.7	1.7
85°	1.4	1.1	1.1	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8
87.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
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°	408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6
2.5°	407.0	406.9	406.7	406.5	406.5	406.4	406.4	406.2	406.2	406.1	406.1
5°	404.2	403.7	403.4	403.1	403.1	402.6	402.3	402.0	401.8	401.8	401.5
7.5°	400.3	399.6	399.0	398.5	398.4	397.6	397.0	397.0	396.3	396.0	395.7
10°	395.1	394.0	393.0	392.6	391.9	391.5	390.7	390.2	389.7	388.9	388.8
12.5°	388.0	387.2	385.8	385.2	384.9	383.9	382.7	382.0	381.9	381.2	380.8
15°	380.0	378.3	377.0	376.2	376.2	374.6	374.0	373.1	372.4	372.0	371.8
17.5°	369.6	367.9	366.6	365.5	365.2	364.0	363.0	362.7	361.9	362.2	361.4
20°	356.3	354.8	353.9	352.5	352.5	351.7	351.4	350.6	350.3	350.0	350.3
22.5°	342.0	340.2	338.7	338.5	338.5	337.4	337.2	337.1	336.5	336.9	336.8
25°	325.1	323.9	322.9	322.8	322.8	322.2	321.5	321.8	322.3	322.2	322.6
27.5°	307.7	306.4	306.1	306.0	305.6	305.5	305.8	305.8	306.3	306.9	307.5
30°	288.8	288.5	288.0	287.9	287.6	288.4	288.7	289.1	289.0	289.9	290.6
32.5°	270.0	269.3	269.2	269.5	270.0	269.8	270.8	271.1	271.4	272.5	273.0
35°	251.0	250.8	250.5	250.5	250.6	251.9	251.9	253.0	253.6	253.9	255.2
37.5°	230.5	231.2	231.5	231.9	232.1	232.6	232.9	234.0	234.6	235.2	235.9
40°	211.8	211.5	212.9	212.0	212.3	213.7	214.3	214.2	215.1	216.1	216.7
42.5°	191.9	192.3	192.7	193.0	193.8	193.9	194.7	195.8	196.1	197.2	197.5
45°	172.5	172.7	173.3	174.0	174.4	175.7	176.0	176.5	177.4	177.4	177.9
47.5°	154.3	154.9	154.9	155.9	156.7	156.5	157.6	157.9	157.8	158.6	158.9
50°	136.9	137.8	137.7	138.3	138.6	138.8	139.7	140.0	139.4	140.2	140.3
52.5°	120.2	120.7	121.3	121.5	121.2	121.9	121.6	122.3	122.1	122.7	122.1
55°	105.0	104.8	104.8	105.1	104.8	105.1	105.4	104.8	104.3	105.0	104.8
57.5°	89.7	89.7	89.4	89.9	89.4	88.9	88.8	88.3	87.8	87.8	87.7
60°	75.4	75.1	74.5	74.3	74.3	73.5	73.2	72.6	72.6	72.0	71.3
62.5°	62.1	61.3	60.8	60.8	60.5	59.7	58.3	57.4	57.0	56.1	55.9
65°	49.5	48.7	48.2	47.3	46.5	46.2	44.8	43.7	43.2	42.3	42.4
67.5°	38.0	36.8	35.4	34.7	34.3	33.2	32.7	31.9	31.4	31.4	31.4
70°	27.3	26.2	24.8	24.4	24.0	23.1	22.6	22.5	22.9	22.8	22.9
72.5°	18.4	17.3	16.7	16.3	16.0	15.6	15.9	16.0	15.7	15.9	16.0
75°	11.2	10.8	10.4	10.2	10.2	10.4	10.2	10.2	10.4	10.4	10.5
77.5°	6.4	6.1	6.1	6.0	6.3	6.1	6.1	6.1	6.3	6.3	6.3
80°	3.5	3.5	3.5	3.5	3.6	3.5	3.6	3.6	3.6	3.6	3.6
82.5°	1.7	1.7	1.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.7
85°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
87.5°	0.2	0.3	0.3	0.3	0.3	0.3	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	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	408.6	408.6	408.6	408.6	408.6	408.6	408.6	408.6
2.5°	405.8	405.8	405.8	405.4	405.6	405.6	405.4	405.4
5°	401.4	401.2	400.9	400.9	400.6	400.9	400.7	400.9
7.5°	395.4	395.4	394.9	394.9	394.8	394.6	394.4	394.6
10°	388.3	388.3	388.0	387.8	388.0	387.4	387.4	387.2
12.5°	380.5	380.1	379.8	380.0	379.8	379.4	379.2	379.4
15°	371.3	370.9	371.0	370.6	370.6	370.4	370.7	370.7
17.5°	361.3	361.0	360.7	360.8	360.5	360.7	360.5	360.3
20°	350.1	350.0	350.0	349.3	349.5	349.3	349.5	350.0
22.5°	337.2	337.1	337.2	336.8	337.1	337.1	337.6	337.6
25°	323.1	322.9	323.3	323.4	323.6	324.0	323.6	323.7
27.5°	307.4	307.8	308.3	308.5	309.1	308.6	308.3	308.8
30°	291.5	291.5	291.3	292.0	292.4	292.9	292.1	292.1
32.5°	273.3	274.1	274.1	274.2	274.7	274.7	274.7	275.3
35°	255.8	256.3	256.5	255.8	256.1	256.0	257.1	257.1
37.5°	236.3	236.3	236.5	237.6	237.6	237.1	237.4	237.4
40°	217.8	218.0	217.3	217.6	218.4	218.1	218.4	218.7
42.5°	197.5	198.6	198.0	198.3	198.2	198.3	198.5	198.5
45°	178.2	178.5	178.5	178.7	179.0	179.3	178.4	178.2
47.5°	159.3	159.5	160.0	159.2	160.1	159.2	160.1	159.0
50°	140.3	141.0	140.5	140.8	140.3	140.3	140.2	140.0
52.5°	122.3	122.1	122.1	121.9	121.9	122.3	121.9	122.4
55°	104.2	104.3	104.0	103.9	103.7	104.2	103.7	103.4
57.5°	87.1	87.4	86.7	87.1	86.0	86.4	86.6	86.7
60°	71.2	70.7	70.7	70.1	70.1	70.6	69.9	69.9
62.5°	55.2	55.5	55.0	55.6	55.6	56.3	55.9	56.3
65°	42.3	42.4	42.6	42.6	42.6	43.5	43.2	42.7
67.5°	31.9	32.1	32.2	32.1	32.5	32.2	32.2	32.4
70°	23.1	23.3	23.4	23.4	23.3	23.4	23.4	23.4
72.5°	16.0	16.2	16.0	16.2	16.3	16.2	16.2	16.3
75°	10.5	10.5	10.4	10.4	10.4	10.4	10.5	10.4
77.5°	6.1	6.3	6.1	6.3	6.3	6.3	6.3	6.3
80°	3.6	3.6	3.6	3.5	3.6	3.6	3.6	3.5
82.5°	1.9	1.9	1.7	1.7	1.9	1.9	1.9	1.9
85°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
87.5°	0.2	0.2	0.2	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)