

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: P858931

Luminaire Tested: **LX4C05D010 EX4C059030 4LBSWNH**

Issue Date: 2/18/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P858931  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251634)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/18/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LX4C05D010 EX4C059030 4LBSWNH  
Description: 4 INCH 500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS AND 4LCSW TRIM WITH H FINISH, DIM TO WARM  
Light Source: -  
Ballast/Driver: -

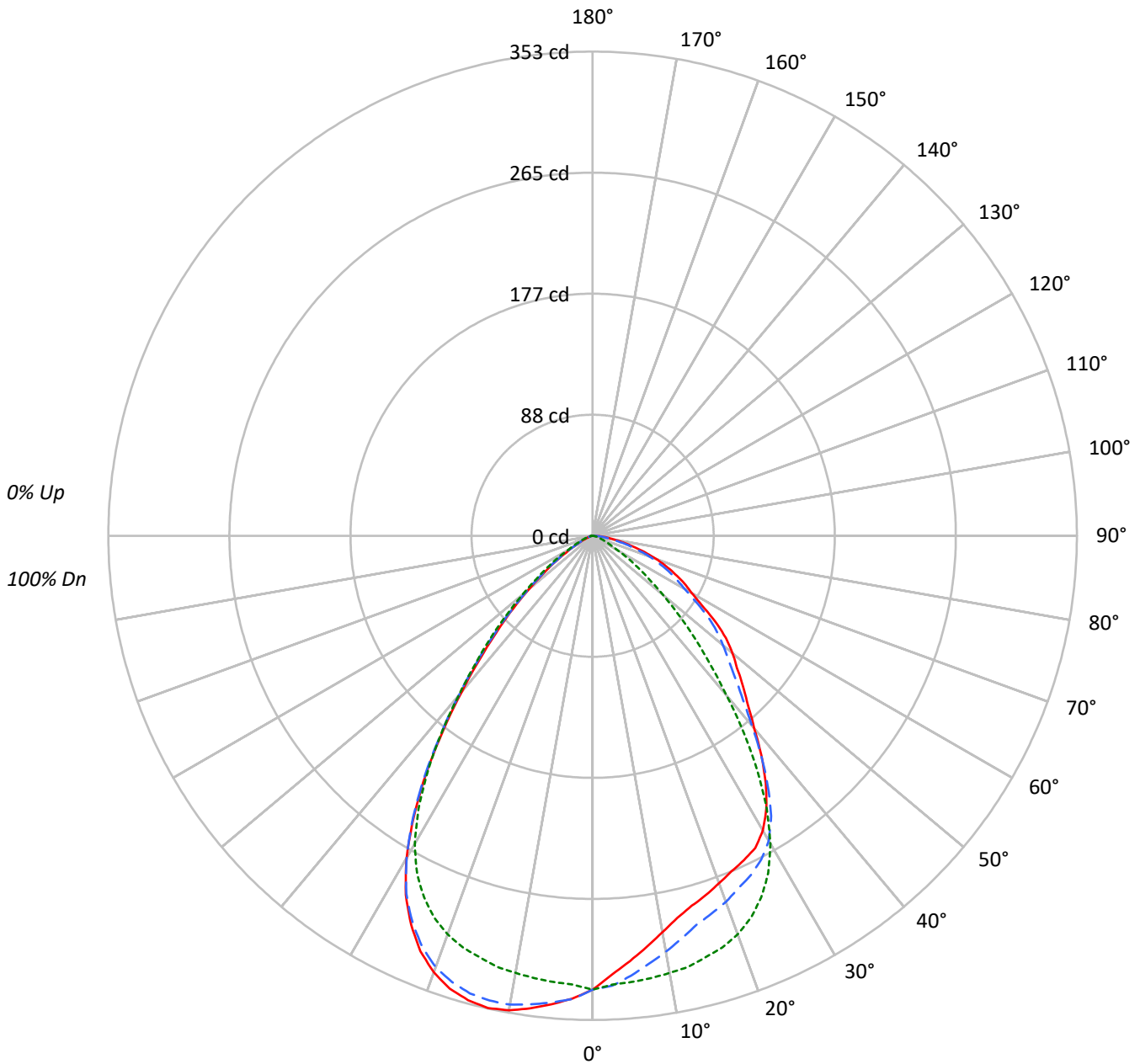
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 580.0 lumens  
Efficiency: N/A  
Efficacy: 80.6 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 7.2  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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			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			100
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89			89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79			79
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70			70
4	90	80	72	67	88	78	72	66	76	70	66	74	69	65	72	68	64	62			62
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56			56
6	78	67	59	53	76	66	59	53	64	58	53	62	57	52	61	56	52	50			50
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	56	51	47	46			46
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42			42
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38			38
10	61	49	42	37	59	48	42	37	47	41	37	47	41	37	46	40	37	35			35

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	40652	40652	40652
5°	38390	40277	42275
10°	36601	40369	43824
15°	35523	40458	44579
20°	35234	40411	44268
25°	35366	39419	42428
30°	35209	36770	38472
35°	32995	31405	31720
40°	29397	24345	23799
45°	26895	18156	17044
50°	25420	12710	11487
55°	23389	8589	7218
60°	20418	5037	3980
65°	19331	3227	2238
70°	17601	2299	1365
75°	14572	1614	997
80°	11461	920	637
85°	10290	564	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.3	5.4
10°-20°	89.7	15.5
20°-30°	133.0	22.9
30°-40°	133.1	23.0
40°-50°	93.0	16.0
50°-60°	55.4	9.5
60°-70°	28.9	5.0
70°-80°	12.8	2.2
80°-90°	2.8	0.5
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°	253.9	43.8
0°-40°	387.0	66.7
0°-60°	535.5	92.3
0°-90°	580.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	580.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	331	331	331	331	331	
5°	311	322	327	342	343	29
15°	279	293	318	345	350	79
25°	261	273	291	311	313	120
35°	220	223	209	213	212	136
45°	155	147	104	101	98	120
55°	109	102	40	35	34	97
65°	66	61	11	8	8	66
75°	31	27	3	2	2	33
85°	7	6	0	0	0	8
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°	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9
2.5°	320.2	324.1	320.2	321.5	326.6	321.9	324.5	324.5	323.2	326.2	328.3
5°	311.3	315.1	311.3	313.0	318.5	313.8	316.8	316.0	316.4	318.9	321.9
7.5°	302.3	305.3	301.9	304.0	309.1	305.3	307.8	307.8	308.3	312.1	314.7
10°	293.4	295.9	293.4	295.1	300.6	297.2	298.9	299.3	300.6	304.0	307.8
12.5°	285.3	287.4	284.8	287.4	292.1	288.7	290.8	291.2	292.5	296.3	300.6
15°	279.3	281.4	278.9	281.0	285.3	282.7	284.4	285.3	286.1	289.5	293.4
17.5°	274.6	276.3	274.2	276.7	280.1	277.2	279.7	279.7	281.0	284.4	288.7
20°	269.5	271.2	269.5	271.6	275.5	272.9	275.0	275.0	276.3	280.1	284.0
22.5°	264.8	265.6	264.8	266.5	270.3	268.2	269.5	269.9	271.2	274.6	278.0
25°	260.9	262.7	261.8	263.5	266.1	263.9	265.2	265.6	266.9	269.9	272.9
27.5°	256.7	257.5	256.7	258.8	260.9	259.2	260.5	260.1	260.9	263.5	266.1
30°	248.2	249.0	249.0	250.3	252.0	251.2	252.4	251.2	252.0	254.1	256.7
32.5°	235.8	236.2	236.6	237.9	239.2	237.9	238.8	238.8	238.8	240.5	242.2
35°	220.0	220.9	220.4	221.3	222.6	222.2	222.2	221.7	220.9	221.7	222.6
37.5°	202.1	200.8	200.8	202.1	203.0	201.3	202.1	201.3	201.3	201.7	201.7
40°	183.3	182.1	183.3	183.8	184.2	183.3	182.9	182.1	180.8	181.2	180.4
42.5°	167.6	166.7	167.1	167.1	167.6	166.7	167.1	165.4	164.2	163.3	162.0
45°	154.8	153.5	154.8	153.9	153.9	153.5	153.1	152.2	150.5	149.2	147.1
47.5°	142.8	142.8	143.3	143.3	143.3	142.4	142.4	140.7	139.0	137.3	134.3
50°	133.0	132.2	133.9	133.9	132.6	132.2	132.6	130.5	129.2	127.1	124.1
52.5°	122.4	122.4	122.8	122.8	122.4	121.5	121.9	120.2	119.0	116.8	113.8
55°	109.2	108.3	109.6	109.6	109.2	108.7	109.2	107.9	106.6	104.9	102.3
57.5°	94.2	93.8	94.7	95.1	94.2	94.2	94.7	93.4	92.9	91.2	88.7
60°	83.1	82.7	83.6	84.0	83.1	83.1	83.1	81.4	80.6	78.9	77.2
62.5°	75.5	75.0	75.9	75.5	75.0	74.6	75.0	73.3	72.5	70.8	69.1
65°	66.5	66.9	67.4	67.4	66.9	66.5	66.5	65.7	64.8	63.1	61.0
67.5°	58.0	58.0	58.4	58.8	58.4	58.4	58.4	57.1	56.3	55.0	52.5
70°	49.0	48.6	49.9	49.9	49.0	49.5	49.0	48.6	47.8	46.0	43.9
72.5°	39.6	39.6	40.1	40.1	39.6	39.6	39.6	39.2	37.9	37.1	35.0
75°	30.7	30.7	31.1	31.6	30.7	30.7	31.1	30.3	29.4	28.1	26.9
77.5°	23.0	22.6	23.0	23.0	22.6	22.6	22.6	22.2	21.7	20.5	19.2
80°	16.2	15.8	16.2	16.2	16.2	15.8	15.8	15.3	15.3	14.5	13.2
82.5°	11.1	10.7	11.1	11.1	11.1	10.7	10.7	10.7	10.2	9.8	9.0
85°	7.3	6.8	6.8	7.3	6.8	6.8	6.8	6.8	6.4	6.0	5.5
87.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.0	3.0	3.0	2.6
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°	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9
2.5°	326.6	325.8	328.3	327.5	327.9	325.8	329.2	327.5	329.6	327.5	331.7
5°	321.1	320.2	324.1	323.6	324.1	322.4	326.2	325.8	328.3	326.6	331.3
7.5°	315.1	314.3	318.5	318.9	319.8	318.1	323.2	323.2	325.8	325.3	330.4
10°	308.3	308.7	313.0	313.8	315.5	314.7	319.4	320.7	324.1	323.6	330.0
12.5°	301.9	301.9	307.4	309.1	310.4	310.0	315.5	317.2	321.1	321.9	327.9
15°	295.5	295.9	301.0	303.6	305.3	304.9	310.8	313.0	317.7	318.1	325.3
17.5°	290.4	289.9	295.5	297.6	300.2	299.8	306.1	308.7	313.4	314.7	321.5
20°	286.1	285.7	290.8	293.4	295.1	294.6	301.0	304.0	308.3	309.1	316.0
22.5°	281.0	280.1	285.3	287.4	289.1	288.7	294.2	296.3	300.6	301.5	307.8
25°	275.0	274.2	278.9	280.1	281.4	280.6	285.3	286.5	289.9	290.8	297.2
27.5°	268.2	266.1	269.9	269.9	270.8	269.5	272.9	274.2	277.2	277.2	283.1
30°	257.5	254.6	256.7	256.3	256.7	255.0	257.1	257.5	259.7	259.2	263.5
32.5°	242.6	238.3	239.6	238.3	237.1	234.5	237.1	236.2	237.9	236.2	240.1
35°	222.2	217.9	217.5	215.8	214.5	212.3	212.3	210.2	210.6	209.4	211.9
37.5°	200.0	194.4	193.6	190.2	188.0	185.5	185.5	183.8	181.6	180.8	182.9
40°	178.2	172.3	170.1	164.6	162.4	159.9	158.2	156.1	155.2	151.8	153.5
42.5°	159.5	153.1	148.4	142.4	140.3	136.4	133.9	131.3	130.1	126.2	127.9
45°	143.7	136.0	130.9	123.2	120.2	116.0	112.1	109.2	106.2	104.5	103.6
47.5°	130.5	122.4	115.5	107.0	102.3	98.5	93.4	90.4	86.6	84.4	83.1
50°	119.4	110.4	102.8	92.9	88.3	84.0	78.0	73.3	69.9	66.5	65.7
52.5°	109.6	100.2	91.7	80.6	75.0	69.9	63.5	58.4	55.4	51.6	51.2
55°	98.1	90.0	80.6	69.1	63.5	58.4	51.6	46.5	42.6	40.1	39.2
57.5°	85.7	78.0	69.1	57.6	52.0	46.5	40.1	35.4	32.0	29.9	29.4
60°	74.2	66.9	58.4	46.9	41.4	36.7	29.9	25.2	22.2	20.5	19.6
62.5°	65.7	58.8	50.7	40.1	35.0	30.3	23.9	19.6	17.0	15.3	14.5
65°	57.6	50.7	43.5	33.7	29.4	25.2	19.2	15.3	12.8	11.1	10.2
67.5°	49.0	43.1	36.2	28.1	23.9	20.5	15.3	11.9	9.8	8.5	7.7
70°	40.5	35.0	29.4	22.6	19.6	16.2	11.9	9.4	7.3	6.4	5.5
72.5°	32.0	27.7	23.0	17.5	14.9	12.8	9.4	6.8	5.5	4.7	3.8
75°	23.9	20.9	17.0	13.2	11.1	9.4	6.8	5.1	4.3	3.4	3.0
77.5°	17.0	14.5	11.9	9.0	8.1	6.8	4.7	3.8	3.0	2.1	1.7
80°	11.5	10.2	8.1	6.4	5.1	4.7	3.4	2.6	1.7	1.3	1.3
82.5°	7.7	6.4	5.1	3.8	3.4	3.0	2.1	1.7	1.3	0.9	0.9
85°	4.7	3.8	3.0	2.1	2.1	1.7	1.3	0.9	0.4	0.4	0.4
87.5°	2.1	1.7	1.3	0.9	0.9	0.4	0.4	0.4	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°	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9
2.5°	335.1	332.6	330.9	333.0	333.9	332.6	333.9	336.0	338.1	338.6	332.6
5°	335.6	333.0	332.2	334.7	335.1	334.7	336.0	339.0	341.5	342.4	336.4
7.5°	335.6	333.9	333.4	336.4	336.8	336.4	338.6	342.0	344.5	346.2	340.3
10°	334.7	333.9	334.3	336.8	337.7	337.7	340.7	344.5	347.1	348.8	342.8
12.5°	333.4	333.4	333.4	336.4	337.3	337.7	340.3	345.4	347.1	349.6	343.7
15°	331.3	331.3	331.3	334.3	335.6	335.6	338.6	343.3	345.4	347.9	342.0
17.5°	327.5	327.5	327.9	330.4	331.7	331.7	334.7	339.8	341.1	344.1	338.1
20°	321.9	321.9	322.4	324.9	326.2	325.3	329.2	333.4	334.7	337.3	331.3
22.5°	313.8	313.8	313.8	316.4	317.2	316.8	320.7	324.5	324.5	327.9	321.5
25°	301.9	302.7	301.9	304.4	305.3	304.9	308.3	311.7	310.8	314.7	308.3
27.5°	287.4	287.0	287.0	289.1	289.1	288.7	291.2	295.1	294.2	296.8	290.8
30°	267.3	268.6	266.5	269.5	268.2	267.3	269.1	272.5	271.2	273.3	268.6
32.5°	244.3	242.6	242.6	242.6	243.5	241.3	243.0	244.8	243.5	245.6	240.5
35°	214.0	214.5	213.2	213.6	214.0	211.5	213.2	214.9	213.2	214.5	209.8
37.5°	183.8	184.2	181.2	182.9	181.2	180.4	182.1	182.9	181.2	182.5	177.4
40°	153.5	152.7	152.2	152.2	152.7	150.5	151.8	153.1	151.8	152.7	148.0
42.5°	127.1	126.6	125.8	126.2	124.9	124.5	124.9	126.2	124.9	125.8	122.4
45°	104.0	103.2	101.9	102.3	102.3	100.2	101.5	102.3	101.1	101.5	98.5
47.5°	82.7	81.4	81.4	81.0	81.0	80.2	81.4	81.0	79.7	80.6	77.6
50°	64.4	63.5	63.5	63.5	63.5	62.2	62.7	63.5	62.2	62.2	60.5
52.5°	50.3	49.0	48.2	48.2	48.2	47.8	47.8	48.2	46.9	46.9	46.5
55°	37.9	37.5	36.2	36.2	36.2	35.0	35.4	35.4	35.0	35.0	33.7
57.5°	28.1	26.9	26.0	26.0	25.2	25.2	24.7	25.2	24.3	24.3	23.5
60°	18.8	17.9	17.5	17.0	17.0	16.6	17.0	16.6	16.6	16.2	15.8
62.5°	13.6	12.8	11.9	11.9	11.9	11.5	11.5	11.5	11.5	11.5	11.1
65°	9.8	9.0	9.0	8.5	8.5	8.1	8.1	8.1	8.1	8.1	7.7
67.5°	6.8	6.4	6.0	6.0	6.0	6.0	6.0	6.0	5.5	5.5	5.5
70°	5.1	4.7	4.3	4.3	4.3	4.3	4.3	3.8	4.3	4.3	3.8
72.5°	3.4	3.4	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
75°	2.6	2.6	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
77.5°	1.7	1.7	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
80°	1.3	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
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





TEST NUMBER: P858931

CATALOG NUMBER: LX4C05D010 EX4C059030 4LBSWNH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9
2.5°	339.0	338.6	337.7	339.0	335.6	334.3	333.9	337.7
5°	343.7	342.8	342.8	344.1	340.3	339.4	338.6	342.8
7.5°	347.9	347.1	347.1	348.4	345.0	344.1	343.3	347.5
10°	350.5	350.5	350.5	351.3	348.4	347.5	347.1	351.3
12.5°	351.8	351.8	351.3	353.0	349.2	349.2	348.4	352.6
15°	350.1	350.1	350.1	351.3	347.9	347.1	347.1	350.5
17.5°	345.8	345.8	345.4	346.7	342.8	342.8	342.4	346.2
20°	339.4	339.4	338.6	340.3	336.4	335.1	334.7	338.6
22.5°	329.2	328.7	328.3	329.2	325.8	324.9	324.5	327.9
25°	316.0	315.5	314.7	315.5	311.7	310.4	310.4	313.0
27.5°	297.2	297.2	295.9	297.2	292.9	292.5	292.1	295.1
30°	274.2	272.5	271.6	273.3	269.1	269.1	268.2	271.2
32.5°	245.6	243.9	243.5	244.3	240.5	239.2	240.9	242.6
35°	212.8	213.2	211.5	211.5	208.1	208.5	208.9	211.5
37.5°	181.2	180.4	179.9	180.4	177.8	177.0	176.1	178.7
40°	151.8	149.7	149.2	149.2	147.1	146.7	147.1	148.4
42.5°	124.1	123.7	121.9	122.8	120.7	121.5	121.1	121.1
45°	100.2	100.6	98.9	100.2	98.5	97.2	97.2	98.1
47.5°	79.3	79.3	78.9	78.9	77.6	78.0	77.2	78.5
50°	61.4	61.4	60.5	61.0	60.1	60.1	59.7	60.1
52.5°	46.9	46.5	46.5	46.0	45.2	45.6	46.0	45.2
55°	34.1	34.5	33.7	34.1	33.3	33.7	33.3	33.7
57.5°	23.5	23.9	23.0	23.9	23.0	23.5	23.0	23.0
60°	16.2	16.2	15.8	16.2	15.8	15.8	15.3	16.2
62.5°	11.1	11.1	11.1	11.1	11.1	10.7	11.1	11.1
65°	8.1	7.7	7.7	7.7	7.7	7.7	7.7	7.7
67.5°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
70°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
72.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
75°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
77.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
80°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
85°	0.4	0.4	0.4	0.0	0.4	0.0	0.0	0.0
87.5°	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



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— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)