

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: P858944

Luminaire Tested: **LX4C05D010 EX4C059030 4LBSWNH**

Issue Date: 2/18/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P858944  
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: -

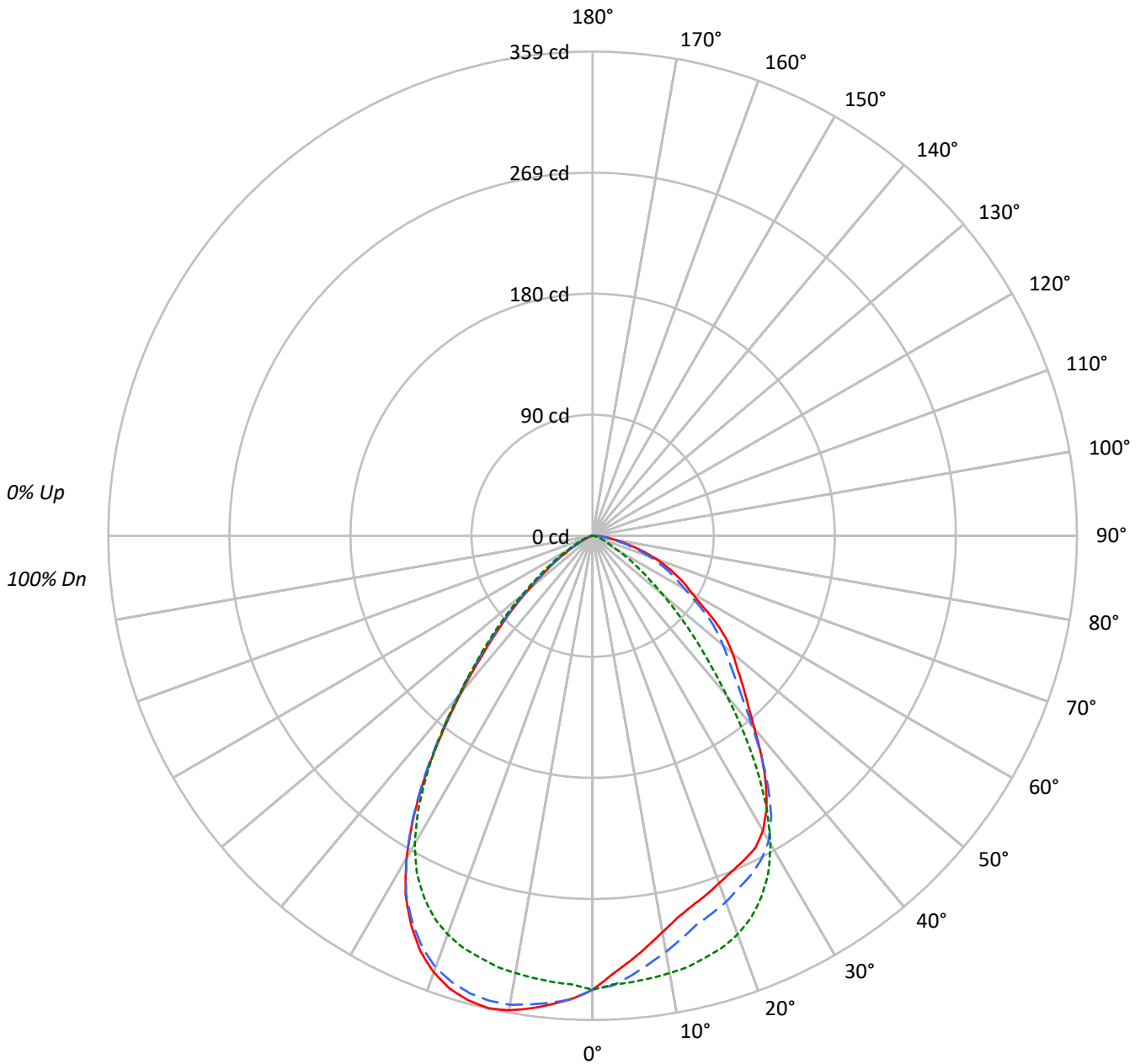
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 590.0 lumens  
Efficiency: N/A  
Efficacy: 81.9 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°	41352	41352	41352
5°	39056	40968	43003
10°	37225	41067	44573
15°	36134	41158	45342
20°	35835	41104	45026
25°	35976	40097	43160
30°	35819	37408	39139
35°	33565	31945	32260
40°	29910	24762	24216
45°	27364	18469	17339
50°	25859	12920	11678
55°	23796	8739	7347
60°	20762	5135	4054
65°	19651	3285	2267
70°	17888	2335	1401
75°	14810	1661	997
80°	11674	920	637
85°	10431	564	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.8	5.4
10°-20°	91.2	15.5
20°-30°	135.2	22.9
30°-40°	135.4	23.0
40°-50°	94.6	16.0
50°-60°	56.3	9.5
60°-70°	29.4	5.0
70°-80°	13.1	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°	258.3	43.8
0°-40°	393.7	66.7
0°-60°	544.7	92.3
0°-90°	590.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	590.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	337	337	337	337	337	
5°	317	327	332	347	349	30
15°	284	298	324	351	356	80
25°	265	278	296	316	318	122
35°	224	226	213	217	215	139
45°	158	150	106	103	100	122
55°	111	104	41	36	34	99
65°	68	62	11	8	8	67
75°	31	27	4	2	2	34
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°	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6
2.5°	325.7	329.7	325.7	327.0	332.2	327.4	330.1	330.1	328.8	331.8	333.9
5°	316.7	320.5	316.7	318.4	324.0	319.2	322.2	321.4	321.8	324.4	327.4
7.5°	307.5	310.6	307.1	309.2	314.4	310.6	313.1	313.1	313.6	317.5	320.1
10°	298.4	301.0	298.4	300.2	305.8	302.3	304.0	304.4	305.8	309.2	313.1
12.5°	290.2	292.3	289.7	292.3	297.1	293.7	295.8	296.2	297.5	301.4	305.8
15°	284.1	286.2	283.7	285.8	290.2	287.6	289.3	290.2	291.0	294.5	298.4
17.5°	279.3	281.1	278.9	281.5	284.9	282.0	284.5	284.5	285.8	289.3	293.7
20°	274.1	275.9	274.1	276.3	280.2	277.6	279.7	279.7	281.1	284.9	288.9
22.5°	269.4	270.2	269.4	271.1	274.9	272.8	274.1	274.5	275.9	279.3	282.8
25°	265.4	267.2	266.3	268.0	270.7	268.4	269.8	270.2	271.5	274.5	277.6
27.5°	261.1	261.9	261.1	263.3	265.4	263.7	265.0	264.6	265.4	268.0	270.7
30°	252.5	253.3	253.3	254.6	256.3	255.5	256.7	255.5	256.3	258.5	261.1
32.5°	239.9	240.3	240.7	242.0	243.3	242.0	242.9	242.9	242.9	244.6	246.4
35°	223.8	224.7	224.2	225.1	226.4	226.0	226.0	225.5	224.7	225.5	226.4
37.5°	205.6	204.3	204.3	205.6	206.5	204.8	205.6	204.8	204.8	205.2	205.2
40°	186.5	185.2	186.5	187.0	187.4	186.5	186.0	185.2	183.9	184.3	183.5
42.5°	170.5	169.6	170.0	170.0	170.5	169.6	170.0	168.2	167.0	166.1	164.8
45°	157.5	156.1	157.5	156.5	156.5	156.1	155.7	154.8	153.1	151.8	149.6
47.5°	145.3	145.3	145.8	145.8	145.8	144.8	144.8	143.1	141.4	139.7	136.6
50°	135.3	134.5	136.2	136.2	134.9	134.5	134.9	132.7	131.4	129.3	126.2
52.5°	124.5	124.5	124.9	124.9	124.5	123.6	124.0	122.3	121.0	118.8	115.8
55°	111.1	110.2	111.5	111.5	111.1	110.6	111.1	109.8	108.4	106.7	104.1
57.5°	95.8	95.4	96.3	96.7	95.8	95.8	96.3	95.0	94.5	92.8	90.2
60°	84.5	84.1	85.0	85.4	84.5	84.5	84.5	82.8	82.0	80.3	78.5
62.5°	76.8	76.3	77.2	76.8	76.3	75.9	76.3	74.6	73.7	72.0	70.3
65°	67.6	68.1	68.6	68.6	68.1	67.6	67.6	66.8	65.9	64.2	62.0
67.5°	59.0	59.0	59.4	59.8	59.4	59.4	59.4	58.1	57.3	55.9	53.4
70°	49.8	49.4	50.8	50.8	49.8	50.4	49.8	49.4	48.6	46.8	44.7
72.5°	40.3	40.3	40.8	40.8	40.3	40.3	40.3	39.9	38.6	37.7	35.6
75°	31.2	31.2	31.6	32.1	31.2	31.2	31.6	30.8	29.9	28.6	27.4
77.5°	23.4	23.0	23.4	23.4	23.0	23.0	23.0	22.6	22.1	20.9	19.5
80°	16.5	16.1	16.5	16.5	16.5	16.1	16.1	15.6	15.6	14.7	13.4
82.5°	11.3	10.9	11.3	11.3	11.3	10.9	10.9	10.9	10.4	10.0	9.2
85°	7.4	6.9	6.9	7.4	6.9	6.9	6.9	6.9	6.5	6.1	5.6
87.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.1	3.1	3.1	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°	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6
2.5°	332.2	331.4	333.9	333.1	333.5	331.4	334.9	333.1	335.3	333.1	337.4
5°	326.6	325.7	329.7	329.2	329.7	327.9	331.8	331.4	333.9	332.2	337.0
7.5°	320.5	319.7	324.0	324.4	325.3	323.6	328.8	328.8	331.4	330.9	336.1
10°	313.6	314.0	318.4	319.2	320.9	320.1	324.9	326.2	329.7	329.2	335.7
12.5°	307.1	307.1	312.7	314.4	315.7	315.3	320.9	322.7	326.6	327.4	333.5
15°	300.6	301.0	306.2	308.8	310.6	310.1	316.1	318.4	323.2	323.6	330.9
17.5°	295.4	294.9	300.6	302.7	305.4	305.0	311.4	314.0	318.8	320.1	327.0
20°	291.0	290.6	295.8	298.4	300.2	299.7	306.2	309.2	313.6	314.4	321.4
22.5°	285.8	284.9	290.2	292.3	294.1	293.7	299.3	301.4	305.8	306.7	313.1
25°	279.7	278.9	283.7	284.9	286.2	285.4	290.2	291.4	294.9	295.8	302.3
27.5°	272.8	270.7	274.5	274.5	275.5	274.1	277.6	278.9	282.0	282.0	288.0
30°	261.9	259.0	261.1	260.7	261.1	259.4	261.5	261.9	264.2	263.7	268.0
32.5°	246.8	242.4	243.7	242.4	241.2	238.5	241.2	240.3	242.0	240.3	244.2
35°	226.0	221.6	221.2	219.5	218.2	216.0	216.0	213.8	214.2	213.0	215.5
37.5°	203.4	197.7	196.9	193.5	191.2	188.7	188.7	187.0	184.7	183.9	186.0
40°	181.3	175.3	173.0	167.4	165.2	162.7	160.9	158.8	157.9	154.4	156.1
42.5°	162.2	155.7	151.0	144.8	142.7	138.7	136.2	133.6	132.3	128.4	130.1
45°	146.2	138.3	133.2	125.3	122.3	118.0	114.0	111.1	108.0	106.3	105.4
47.5°	132.7	124.5	117.5	108.8	104.1	100.2	95.0	92.0	88.1	85.9	84.5
50°	121.5	112.3	104.6	94.5	89.8	85.4	79.3	74.6	71.1	67.6	66.8
52.5°	111.5	101.9	93.3	82.0	76.3	71.1	64.6	59.4	56.4	52.5	52.1
55°	99.8	91.5	82.0	70.3	64.6	59.4	52.5	47.3	43.3	40.8	39.9
57.5°	87.2	79.3	70.3	58.6	52.9	47.3	40.8	36.0	32.6	30.4	29.9
60°	75.5	68.1	59.4	47.7	42.1	37.3	30.4	25.6	22.6	20.9	19.9
62.5°	66.8	59.8	51.6	40.8	35.6	30.8	24.3	19.9	17.3	15.6	14.7
65°	58.6	51.6	44.2	34.3	29.9	25.6	19.5	15.6	13.0	11.3	10.4
67.5°	49.8	43.8	36.8	28.6	24.3	20.9	15.6	12.1	10.0	8.6	7.8
70°	41.2	35.6	29.9	23.0	19.9	16.5	12.1	9.6	7.4	6.5	5.6
72.5°	32.6	28.2	23.4	17.8	15.2	13.0	9.6	6.9	5.6	4.8	3.9
75°	24.3	21.3	17.3	13.4	11.3	9.6	6.9	5.2	4.4	3.5	3.1
77.5°	17.3	14.7	12.1	9.2	8.2	6.9	4.8	3.9	3.1	2.1	1.7
80°	11.7	10.4	8.2	6.5	5.2	4.8	3.5	2.6	1.7	1.3	1.3
82.5°	7.8	6.5	5.2	3.9	3.5	3.1	2.1	1.7	1.3	0.9	0.9
85°	4.8	3.9	3.1	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°	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6
2.5°	340.9	338.3	336.6	338.7	339.6	338.3	339.6	341.8	343.9	344.4	338.3
5°	341.4	338.7	337.9	340.5	340.9	340.5	341.8	344.8	347.4	348.3	342.2
7.5°	341.4	339.6	339.1	342.2	342.6	342.2	344.4	347.9	350.4	352.2	346.2
10°	340.5	339.6	340.0	342.6	343.5	343.5	346.6	350.4	353.1	354.8	348.7
12.5°	339.1	339.1	339.1	342.2	343.1	343.5	346.2	351.3	353.1	355.6	349.6
15°	337.0	337.0	337.0	340.0	341.4	341.4	344.4	349.2	351.3	353.9	347.9
17.5°	333.1	333.1	333.5	336.1	337.4	337.4	340.5	345.6	347.0	350.0	343.9
20°	327.4	327.4	327.9	330.5	331.8	330.9	334.9	339.1	340.5	343.1	337.0
22.5°	319.2	319.2	319.2	321.8	322.7	322.2	326.2	330.1	330.1	333.5	327.0
25°	307.1	307.9	307.1	309.6	310.6	310.1	313.6	317.1	316.1	320.1	313.6
27.5°	292.3	291.9	291.9	294.1	294.1	293.7	296.2	300.2	299.3	301.9	295.8
30°	271.9	273.2	271.1	274.1	272.8	271.9	273.7	277.2	275.9	278.0	273.2
32.5°	248.5	246.8	246.8	246.8	247.7	245.5	247.2	249.0	247.7	249.8	244.6
35°	217.7	218.2	216.9	217.3	217.7	215.1	216.9	218.6	216.9	218.2	213.4
37.5°	187.0	187.4	184.3	186.0	184.3	183.5	185.2	186.0	184.3	185.6	180.5
40°	156.1	155.3	154.8	154.8	155.3	153.1	154.4	155.7	154.4	155.3	150.5
42.5°	129.3	128.8	128.0	128.4	127.0	126.6	127.0	128.4	127.0	128.0	124.5
45°	105.8	105.0	103.7	104.1	104.1	101.9	103.2	104.1	102.8	103.2	100.2
47.5°	84.1	82.8	82.8	82.4	82.4	81.6	82.8	82.4	81.1	82.0	78.9
50°	65.5	64.6	64.6	64.6	64.6	63.3	63.8	64.6	63.3	63.3	61.5
52.5°	51.2	49.8	49.0	49.0	49.0	48.6	48.6	49.0	47.7	47.7	47.3
55°	38.6	38.1	36.8	36.8	36.8	35.6	36.0	36.0	35.6	35.6	34.3
57.5°	28.6	27.4	26.4	26.4	25.6	25.6	25.1	25.6	24.7	24.7	23.9
60°	19.1	18.2	17.8	17.3	17.3	16.9	17.3	16.9	16.9	16.5	16.1
62.5°	13.8	13.0	12.1	12.1	12.1	11.7	11.7	11.7	11.7	11.7	11.3
65°	10.0	9.2	9.2	8.6	8.6	8.2	8.2	8.2	8.2	8.2	7.8
67.5°	6.9	6.5	6.1	6.1	6.1	6.1	6.1	6.1	5.6	5.6	5.6
70°	5.2	4.8	4.4	4.4	4.4	4.4	4.4	3.9	4.4	4.4	3.9
72.5°	3.5	3.5	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
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: P858944

CATALOG NUMBER: LX4C05D010 EX4C059030 4LBSWNH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	336.6	336.6	336.6	336.6	336.6	336.6	336.6	336.6
2.5°	344.8	344.4	343.5	344.8	341.4	340.0	339.6	343.5
5°	349.6	348.7	348.7	350.0	346.2	345.2	344.4	348.7
7.5°	353.9	353.1	353.1	354.4	350.9	350.0	349.2	353.5
10°	356.5	356.5	356.5	357.3	354.4	353.5	353.1	357.3
12.5°	357.9	357.9	357.3	359.1	355.2	355.2	354.4	358.7
15°	356.1	356.1	356.1	357.3	353.9	353.1	353.1	356.5
17.5°	351.7	351.7	351.3	352.7	348.7	348.7	348.3	352.2
20°	345.2	345.2	344.4	346.2	342.2	340.9	340.5	344.4
22.5°	334.9	334.4	333.9	334.9	331.4	330.5	330.1	333.5
25°	321.4	320.9	320.1	320.9	317.1	315.7	315.7	318.4
27.5°	302.3	302.3	301.0	302.3	297.9	297.5	297.1	300.2
30°	278.9	277.2	276.3	278.0	273.7	273.7	272.8	275.9
32.5°	249.8	248.1	247.7	248.5	244.6	243.3	245.0	246.8
35°	216.5	216.9	215.1	215.1	211.7	212.1	212.5	215.1
37.5°	184.3	183.5	183.0	183.5	180.9	180.0	179.1	181.8
40°	154.4	152.3	151.8	151.8	149.6	149.2	149.6	151.0
42.5°	126.2	125.8	124.0	124.9	122.8	123.6	123.2	123.2
45°	101.9	102.3	100.6	101.9	100.2	98.9	98.9	99.8
47.5°	80.7	80.7	80.3	80.3	78.9	79.3	78.5	79.9
50°	62.5	62.5	61.5	62.0	61.1	61.1	60.7	61.1
52.5°	47.7	47.3	47.3	46.8	46.0	46.4	46.8	46.0
55°	34.7	35.1	34.3	34.7	33.9	34.3	33.9	34.3
57.5°	23.9	24.3	23.4	24.3	23.4	23.9	23.4	23.4
60°	16.5	16.5	16.1	16.5	16.1	16.1	15.6	16.5
62.5°	11.3	11.3	11.3	11.3	11.3	10.9	11.3	11.3
65°	8.2	7.8	7.8	7.8	7.8	7.8	7.8	7.8
67.5°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
70°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
72.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
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)