

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: P857220

Luminaire Tested: **LX4C20D010 EX4C209727 4LBLWW\***

Issue Date: 2/9/2022

**Test Information**

Test Method: LM-79-08  
Report Number: P857220  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/9/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LX4C20D010 EX4C209727 4LBLWW\*  
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 97CRI LEDS  
AND 4LRLWW TRIM WITH \* FINISH  
Light Source: -  
Ballast/Driver: -

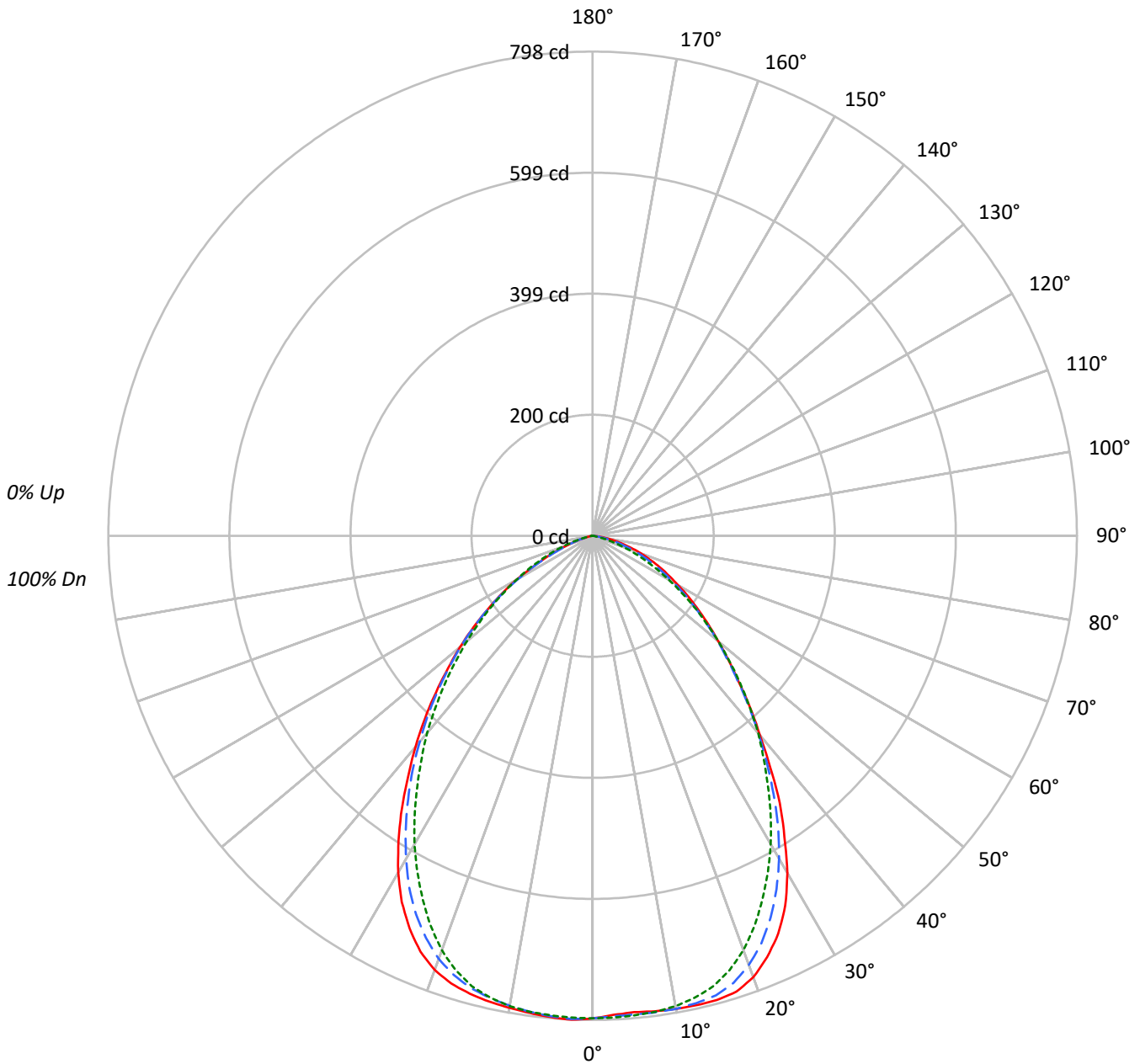
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1525.0 lumens  
Efficiency: N/A  
Efficacy: 70.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.18  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.8  
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									
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	109	105	102	99	101	99	96	97	95	93	94	92	91	89																			
2	103	96	91	86	101	95	89	85	91	87	83	88	84	81	85	82	80	78																			
3	95	87	80	74	93	85	79	74	82	77	72	80	75	71	77	73	70	68																			
4	88	78	71	65	86	77	70	65	75	69	64	72	67	63	70	66	62	60																			
5	82	71	63	57	80	70	63	57	68	61	57	66	60	56	64	59	55	54																			
6	76	65	57	51	75	64	56	51	62	56	51	61	55	50	59	54	50	48																			
7	71	59	51	46	70	59	51	46	57	50	46	56	50	45	54	49	45	43																			
8	67	55	47	42	65	54	47	42	53	46	41	52	46	41	50	45	41	39																			
9	63	51	43	38	61	50	43	38	49	42	38	48	42	38	47	41	37	36																			
10	59	47	40	35	58	46	39	35	45	39	35	45	39	35	44	38	34	33																			

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

	0°	90°	180°
0°	97718	97718	97718
5°	97178	97832	98202
10°	98788	98190	98564
15°	100720	97756	99384
20°	101217	95007	99544
25°	98100	89723	96772
30°	91059	83257	90889
35°	80642	75528	82157
40°	68736	68031	72858
45°	59055	59732	63468
50°	51547	51661	54414
55°	45558	43630	45108
60°	39927	35603	35456
65°	35349	27616	24564
70°	30137	19002	14584
75°	24398	10205	6645
80°	16697	2547	1698
85°	5075	846	846



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.6	5.0
10°-20°	218.8	14.4
20°-30°	316.2	20.7
30°-40°	326.9	21.4
40°-50°	270.1	17.7
50°-60°	186.4	12.2
60°-70°	97.6	6.4
70°-80°	30.7	2.0
80°-90°	2.6	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°	610.7	40.0
0°-40°	937.6	61.5
0°-60°	1394.1	91.4
0°-90°	1525.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1525.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	795	795	795	795	795	
5°	788	792	793	795	796	75
15°	792	784	769	772	781	223
25°	724	694	662	688	714	330
35°	538	520	504	530	548	334
45°	340	338	344	360	365	265
55°	213	206	204	209	211	191
65°	122	110	95	79	84	120
75°	51	40	22	15	14	55
85°	4	2	1	1	1	7
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°	795.4	795.4	795.4	795.4	795.4	795.4	795.4	795.4	795.4	795.4	795.4
2.5°	790.4	790.7	790.7	791.3	791.3	791.3	791.6	791.6	791.9	792.2	792.5
5°	788.0	788.0	788.6	788.9	789.5	789.8	790.4	790.7	791.3	791.6	791.9
7.5°	790.4	790.4	790.7	791.0	791.0	791.3	791.3	791.6	791.9	792.2	792.2
10°	791.9	791.9	791.9	791.9	792.2	792.2	792.2	791.9	791.9	791.9	791.6
12.5°	792.5	792.5	792.2	791.9	792.2	791.9	791.9	791.0	790.4	789.8	788.9
15°	791.9	791.9	791.6	791.3	791.0	790.4	790.1	788.6	787.4	785.6	784.4
17.5°	788.0	787.4	786.8	786.2	785.0	784.1	783.5	780.8	778.7	775.7	772.4
20°	774.2	773.6	772.7	771.2	769.7	768.6	766.8	762.9	760.8	756.3	753.0
22.5°	751.8	751.2	751.5	748.8	745.9	744.1	742.9	739.6	736.0	730.3	726.7
25°	723.7	722.0	722.0	717.8	716.3	715.1	713.6	709.7	704.3	699.3	694.5
27.5°	687.3	684.9	683.7	683.1	679.5	676.9	674.8	671.8	667.3	662.8	656.2
30°	641.9	641.6	640.1	637.4	634.7	633.5	631.2	626.1	621.9	618.6	614.4
32.5°	588.4	588.1	588.1	588.1	586.3	586.0	582.5	579.8	576.5	571.4	568.7
35°	537.7	537.4	537.7	533.2	532.0	531.1	530.8	529.0	524.5	522.1	519.7
37.5°	480.3	481.2	480.6	479.4	480.9	478.2	480.3	476.4	474.6	474.0	471.3
40°	428.6	431.0	428.6	428.9	430.4	427.7	427.7	427.1	425.9	425.3	424.8
42.5°	384.4	381.4	383.2	381.7	383.2	382.3	380.8	381.7	382.0	380.8	380.5
45°	339.9	340.5	341.1	340.2	340.2	339.3	341.7	340.2	340.2	340.5	338.4
47.5°	303.8	302.9	303.5	302.9	303.2	302.6	303.2	303.5	302.9	302.9	301.1
50°	269.7	269.1	271.2	269.4	269.4	269.1	269.4	268.8	267.9	267.9	268.5
52.5°	240.2	239.0	238.7	240.2	238.1	238.1	238.4	237.8	236.6	236.0	234.5
55°	212.7	212.4	212.7	211.5	210.9	210.9	209.4	208.8	208.5	207.0	206.1
57.5°	187.0	186.1	186.4	186.1	184.9	184.6	183.4	183.4	182.2	181.0	179.5
60°	162.5	162.5	163.4	162.2	161.3	160.7	160.1	159.5	157.4	155.3	153.5
62.5°	140.7	141.0	140.7	139.8	139.2	138.6	138.0	136.2	134.4	133.2	131.1
65°	121.6	121.3	120.4	119.8	118.3	118.3	117.1	116.2	114.1	112.3	110.2
67.5°	101.9	101.3	101.3	101.3	99.5	99.2	98.6	96.8	95.0	92.6	90.8
70°	83.9	84.5	83.6	82.7	81.8	81.5	80.6	78.9	76.8	74.4	72.9
72.5°	66.9	67.5	66.6	66.3	64.5	63.9	63.6	62.1	59.7	58.2	55.9
75°	51.4	51.7	51.1	50.5	49.3	49.0	47.5	46.3	44.8	42.4	40.3
77.5°	37.0	36.4	36.4	35.2	34.1	34.1	33.8	32.0	29.9	28.1	26.3
80°	23.6	23.3	22.4	21.8	20.9	20.6	20.3	18.8	17.3	16.1	14.9
82.5°	11.9	11.6	11.4	11.1	10.5	9.9	10.2	9.0	8.4	7.2	6.3
85°	3.6	3.9	3.9	3.6	3.3	3.3	3.3	3.0	2.4	2.1	1.8
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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	795.4	795.4	795.4	795.4	795.4	795.4	795.4	795.4	795.4	795.4	795.4
2.5°	792.7	793.0	793.3	793.6	793.6	793.9	794.2	794.5	794.8	794.8	795.1
5°	792.2	792.7	792.7	793.0	793.0	793.0	793.3	793.3	793.3	793.3	793.6
7.5°	792.5	792.5	792.5	792.2	792.2	791.9	791.9	791.9	791.3	791.3	791.3
10°	791.0	790.7	790.4	789.8	789.5	789.2	788.6	788.0	787.4	787.1	786.5
12.5°	788.0	786.8	785.6	784.4	783.8	783.5	782.3	781.4	780.5	779.6	779.0
15°	782.0	780.2	778.1	775.7	775.1	774.5	772.4	770.6	769.5	768.6	767.1
17.5°	770.0	766.5	764.1	760.5	759.0	758.4	755.1	753.3	751.2	750.6	749.4
20°	748.8	745.6	741.1	737.8	736.0	734.2	731.5	729.1	726.7	726.7	725.2
22.5°	722.3	718.1	712.4	708.2	707.9	704.3	701.9	699.3	698.4	696.6	696.6
25°	688.8	685.2	678.9	675.4	673.6	672.7	668.8	665.2	663.4	661.9	663.1
27.5°	651.8	646.4	641.6	637.1	635.6	633.8	630.3	628.8	625.5	625.2	624.9
30°	609.3	604.0	599.2	597.1	594.1	592.6	589.9	588.1	586.9	586.9	586.3
32.5°	564.8	560.1	557.7	553.2	551.7	549.6	547.8	546.0	546.6	546.0	546.3
35°	516.8	515.6	511.1	508.4	508.4	508.1	505.1	503.9	503.3	503.6	505.1
37.5°	471.0	467.5	464.5	462.7	464.2	462.4	462.1	462.1	463.9	462.7	465.1
40°	422.4	422.1	420.9	421.5	421.8	419.7	420.3	420.6	421.8	424.2	424.5
42.5°	379.9	379.6	379.6	379.6	379.1	377.9	379.1	381.1	380.8	382.6	384.1
45°	339.0	338.4	339.6	338.7	340.5	341.1	340.2	340.8	342.6	343.8	346.2
47.5°	301.7	301.7	302.0	302.6	300.8	302.3	302.9	304.1	305.0	305.6	306.8
50°	267.0	267.0	266.4	266.4	266.4	267.3	266.1	267.6	267.9	270.3	271.8
52.5°	235.1	233.6	234.5	233.9	232.7	232.1	232.7	233.0	234.8	235.4	237.2
55°	204.6	204.6	202.2	201.6	202.5	202.2	201.9	201.9	202.8	203.7	205.2
57.5°	177.7	175.9	174.1	173.8	172.9	173.2	173.2	172.9	172.3	172.6	172.9
60°	152.3	151.1	148.5	148.5	148.2	147.9	146.4	146.1	144.6	144.9	143.7
62.5°	129.0	128.4	124.9	123.7	123.7	122.8	121.3	121.0	118.9	118.9	117.7
65°	108.1	106.3	104.2	102.2	102.2	101.0	100.1	97.4	95.9	95.0	93.2
67.5°	89.0	86.3	84.2	82.4	81.2	80.9	78.9	77.1	74.7	73.2	70.5
70°	70.5	68.4	66.3	64.5	63.3	62.1	60.0	57.4	55.6	52.9	51.1
72.5°	53.2	51.4	49.6	47.2	45.7	44.8	42.7	40.3	37.3	35.5	33.2
75°	38.2	36.1	33.8	31.7	30.8	29.9	27.5	25.7	23.6	21.5	19.1
77.5°	24.8	22.4	20.6	18.2	17.9	17.3	14.9	13.1	11.6	10.5	9.0
80°	13.1	11.9	10.5	9.0	8.4	7.5	6.3	5.4	4.5	3.6	3.0
82.5°	5.7	4.8	3.9	3.3	3.0	2.7	2.1	1.8	1.5	1.5	1.2
85°	1.5	1.2	1.2	0.9	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.0	0.3	0.3	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°	795.4	795.4	795.4	795.4	795.4	795.4	795.4	795.4	795.4	795.4	795.4
2.5°	795.4	795.7	796.0	796.0	796.3	796.6	796.6	796.9	797.2	797.5	797.5
5°	793.9	793.9	793.9	794.2	794.2	794.2	794.2	794.8	794.8	795.1	795.4
7.5°	791.0	791.0	791.0	791.0	790.7	791.0	790.7	790.7	791.3	791.6	791.9
10°	786.2	785.9	785.9	785.6	785.6	785.6	785.9	786.2	786.5	786.8	787.7
12.5°	778.7	778.4	778.4	778.1	778.1	778.4	778.7	779.3	780.5	781.1	782.3
15°	766.8	766.5	766.8	767.1	767.7	768.6	769.5	770.3	772.1	773.6	775.1
17.5°	749.4	749.7	750.0	750.6	751.5	752.7	755.1	757.5	759.6	762.0	764.4
20°	725.5	726.7	727.0	729.1	729.7	732.4	735.1	738.7	742.0	745.0	748.2
22.5°	696.9	697.8	699.0	701.3	702.8	706.4	709.7	713.9	717.5	721.4	726.1
25°	664.3	664.6	668.2	668.2	671.8	674.8	678.6	683.1	688.5	693.6	696.9
27.5°	627.3	628.8	631.5	632.6	635.3	640.1	643.4	648.8	654.2	658.6	662.2
30°	588.4	589.6	594.1	594.7	596.8	601.0	605.5	610.5	614.7	619.8	623.1
32.5°	547.5	550.8	553.5	555.6	556.2	562.5	564.8	568.4	573.2	578.3	581.6
35°	507.8	509.3	513.2	514.4	516.2	519.7	524.5	527.5	529.9	533.2	537.1
37.5°	465.7	470.2	471.0	474.6	475.2	478.5	480.9	484.5	487.5	490.5	491.1
40°	426.5	428.0	431.3	432.2	432.8	437.3	440.3	441.2	442.7	445.4	448.9
42.5°	386.8	388.3	391.9	391.0	393.7	395.8	397.3	400.9	402.3	403.2	403.2
45°	347.7	348.3	350.7	351.9	353.4	354.6	357.2	359.0	359.6	362.3	363.2
47.5°	310.3	310.9	312.7	314.8	314.2	315.7	318.7	319.6	319.9	321.7	322.6
50°	273.6	275.1	277.5	276.9	278.7	279.6	282.3	282.9	282.9	283.2	283.5
52.5°	239.3	240.5	241.1	241.6	242.5	244.0	245.2	244.6	245.8	247.0	246.1
55°	205.2	206.1	207.6	208.2	208.2	208.5	207.9	210.6	209.4	209.1	209.4
57.5°	174.1	172.9	172.6	174.1	174.7	174.4	173.5	174.7	174.7	174.1	173.2
60°	144.0	143.1	142.8	143.1	141.9	141.0	141.6	141.0	139.5	138.9	139.2
62.5°	116.5	115.6	113.2	113.2	112.6	112.3	109.9	110.2	109.0	107.2	107.8
65°	91.1	88.7	87.5	87.2	85.1	83.3	82.7	80.6	78.9	78.6	78.9
67.5°	68.4	65.7	63.6	62.7	61.5	60.0	57.9	56.2	56.8	56.5	57.6
70°	47.5	45.7	43.6	42.1	42.7	40.9	39.7	39.7	40.0	40.3	40.9
72.5°	31.7	29.3	28.4	27.5	26.9	25.7	26.3	26.3	26.0	26.3	25.7
75°	17.9	16.7	15.8	15.5	14.9	14.9	14.9	14.9	14.6	14.3	14.3
77.5°	8.1	7.5	7.2	6.9	6.9	6.9	6.6	6.3	6.3	6.3	6.0
80°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	1.2	1.2	1.5	1.5	1.5	1.2	1.5	1.5	1.2	1.2	1.5
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.3	0.0	0.3	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: P857220

CATALOG NUMBER: LX4C20D010 EX4C209727 4LBLWW\*

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	795.4	795.4	795.4	795.4	795.4	795.4	795.4	795.4
2.5°	797.8	798.1	798.1	798.1	798.4	798.4	798.4	798.4
5°	795.7	796.0	796.0	796.0	796.3	796.3	796.3	796.3
7.5°	792.2	792.5	792.5	792.7	792.7	793.0	793.0	793.3
10°	788.0	788.6	788.9	789.2	789.5	789.8	789.8	790.1
12.5°	783.5	784.1	784.4	785.0	785.6	785.9	786.2	786.5
15°	776.9	778.1	778.7	779.0	780.2	780.8	781.1	781.4
17.5°	766.5	768.9	769.7	770.3	771.5	772.7	773.6	773.9
20°	751.5	754.2	755.4	756.9	758.7	760.2	760.8	761.4
22.5°	730.6	733.6	735.4	737.2	738.7	740.2	742.6	741.7
25°	700.7	705.8	707.9	708.8	712.1	713.9	715.1	713.9
27.5°	667.3	670.3	672.1	674.2	676.6	678.3	678.9	680.7
30°	627.0	632.0	631.8	633.8	636.8	638.6	639.2	640.7
32.5°	585.2	587.5	589.3	589.0	590.2	593.5	592.3	595.0
35°	540.6	540.9	543.9	543.6	546.0	546.0	546.0	547.8
37.5°	493.2	496.7	495.2	498.8	497.6	498.5	498.5	499.1
40°	449.8	451.0	451.0	452.2	453.1	452.2	452.8	454.3
42.5°	405.0	406.2	406.5	405.9	406.8	409.5	407.4	409.2
45°	363.2	364.1	365.3	364.4	365.9	365.0	365.9	365.3
47.5°	323.8	323.5	323.2	325.6	323.5	323.8	325.0	322.9
50°	283.5	285.3	284.1	285.0	285.6	285.6	284.7	284.7
52.5°	247.6	247.3	246.4	247.3	246.7	247.0	247.6	247.0
55°	210.6	211.8	211.2	210.9	211.2	211.2	213.0	210.6
57.5°	174.1	173.5	174.4	176.5	174.4	175.9	176.8	177.1
60°	139.5	139.5	141.3	140.4	142.2	143.7	144.9	144.3
62.5°	106.3	107.8	108.4	108.7	110.5	111.7	111.7	111.4
65°	78.9	80.9	80.9	82.1	82.7	82.7	83.3	84.5
67.5°	58.2	58.2	58.5	59.1	58.8	58.8	59.4	59.7
70°	40.6	40.0	40.9	40.6	40.6	40.3	40.6	40.6
72.5°	25.7	25.7	26.0	25.7	25.1	25.4	25.4	26.0
75°	13.7	14.3	13.7	13.7	14.0	13.4	13.7	14.0
77.5°	5.7	5.7	5.7	5.7	5.7	5.4	5.4	5.4
80°	2.7	2.7	2.7	2.7	2.7	2.7	2.4	2.4
82.5°	1.2	1.5	1.2	1.5	1.2	1.2	1.2	1.2
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.0	0.3	0.0	0.3	0.0	0.0	0.0	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)