

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P252553

Luminaire Tested: **LE\_6B10D010 EC6B10209040 6LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252553  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-8)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LE\_6B10D010 EC6B10209040 6LBDW1LI  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1148.7 lumens  
Efficiency: N/A  
Efficacy: 114.9 lumens/watt  
Spacing Criteria (0/90/45): 1.11 / 1.22 / 1.15  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

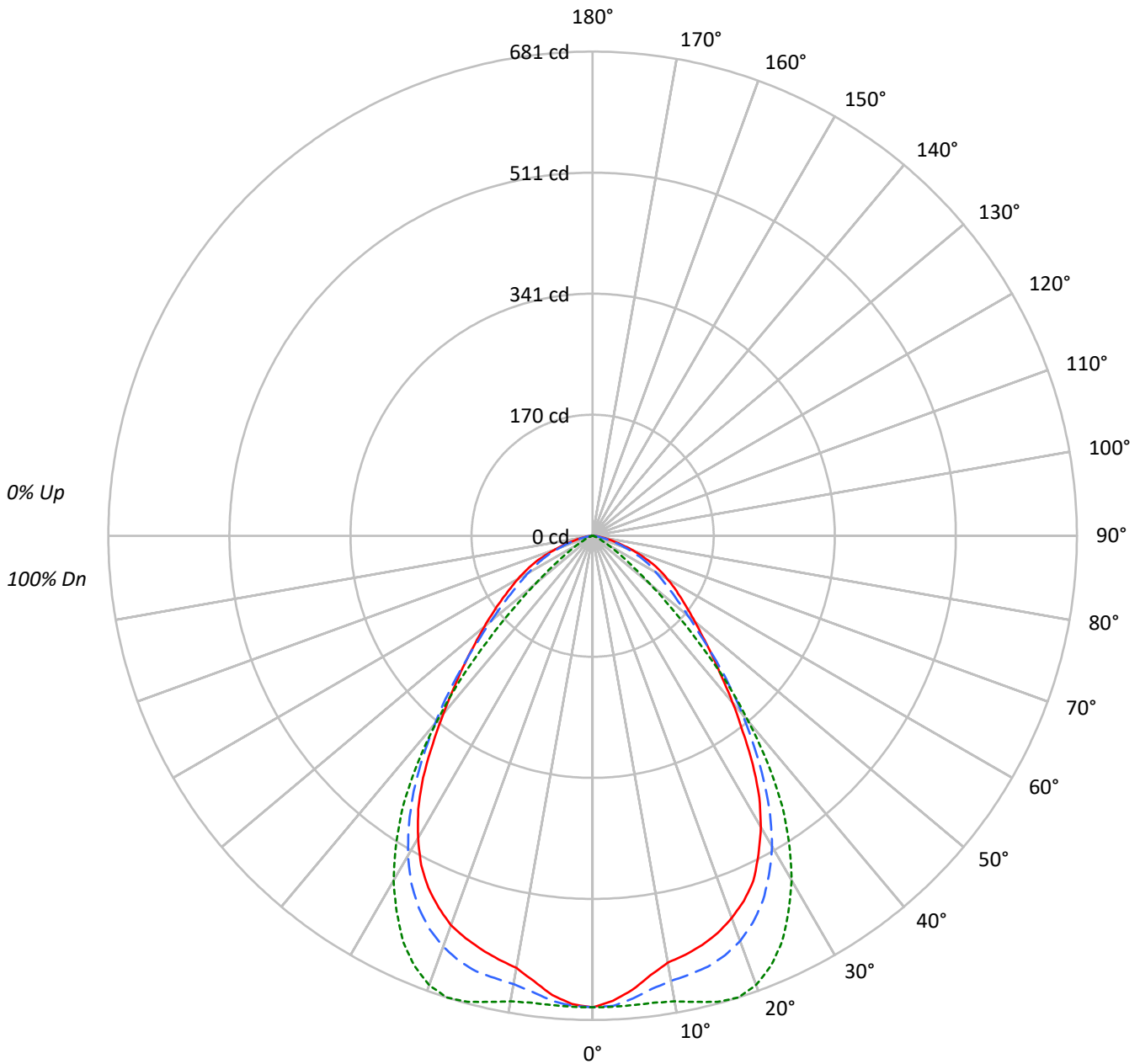
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89																			
2	104	97	92	87	101	95	91	86	92	88	84	89	86	83	86	83	81	79																			
3	96	88	81	76	94	86	80	76	84	79	74	81	77	73	79	75	72	70																			
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62																			
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56																			
6	78	67	59	54	76	66	59	53	64	58	53	63	57	53	61	56	52	50																			
7	73	61	54	49	72	61	53	48	59	53	48	58	52	48	57	51	48	46																			
8	69	57	49	44	67	56	49	44	55	48	44	54	48	44	53	47	43	42																			
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38																			
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35																			

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

	0°	90°	180°
0°	43268	43268	43268
5°	41979	43387	42477
10°	40378	44041	40888
15°	40242	45834	40701
20°	39713	46683	40462
25°	38519	45365	39347
30°	35640	42172	36974
35°	31268	37066	33100
40°	26052	29058	27755
45°	21940	19172	23417
50°	18990	10505	20157
55°	17175	5585	17619
60°	15801	2897	15801
65°	14326	1544	13971
70°	11560	877	10682
75°	7915	555	7335
80°	5185	301	4584
85°	3443	599	2919



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.8	5.4
10°-20°	178.8	15.6
20°-30°	264.2	23.0
30°-40°	266.9	23.2
40°-50°	184.0	16.0
50°-60°	105.7	9.2
60°-70°	61.5	5.4
70°-80°	22.4	2.0
80°-90°	3.4	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°	504.9	44.0
0°-40°	771.8	67.2
0°-60°	1061.4	92.4
0°-90°	1148.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1148.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	663	663	663	663	663	
5°	641	653	662	656	649	60
15°	596	627	679	634	603	168
25°	535	567	630	578	547	244
35°	393	419	465	439	416	244
45°	238	241	208	256	254	185
55°	151	133	49	138	155	136
65°	93	78	10	78	90	91
75°	31	25	2	24	29	35
85°	5	2	1	3	4	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°	663.2	663.2	663.2	663.2	663.2	663.2	663.2	663.2	663.2	663.2	663.2
2.5°	654.8	655.6	656.4	655.6	656.4	659.4	657.1	658.6	658.6	659.4	661.8
5°	641.0	641.0	642.5	641.8	644.0	647.1	644.9	647.1	647.9	649.4	653.2
7.5°	623.4	623.4	624.1	624.1	627.2	630.2	628.8	631.8	634.9	637.9	642.5
10°	609.5	611.1	611.1	611.9	614.9	618.8	618.0	621.9	624.9	629.5	635.6
12.5°	603.4	604.2	604.2	605.8	608.8	612.6	611.9	615.8	620.2	625.6	631.8
15°	595.8	597.2	596.5	598.0	601.1	605.0	604.2	608.0	613.4	618.8	627.2
17.5°	585.8	586.5	587.4	587.4	590.4	593.5	593.5	597.2	603.4	609.5	618.8
20°	572.0	573.5	573.5	574.2	576.6	581.2	580.4	584.2	590.4	596.5	606.5
22.5°	555.9	556.6	556.6	557.4	561.2	563.5	564.4	567.4	572.8	579.6	588.9
25°	535.1	536.0	535.1	537.5	539.0	543.6	542.1	545.9	552.0	557.4	566.6
27.5°	505.2	506.9	506.9	507.6	511.4	515.2	515.2	519.1	524.5	528.2	537.5
30°	473.1	475.4	473.1	476.9	478.5	481.5	483.9	486.1	490.8	496.1	504.5
32.5°	436.2	435.5	436.2	437.8	442.4	444.8	446.2	448.5	453.1	457.8	464.6
35°	392.6	394.1	394.9	398.0	398.0	401.8	402.5	404.1	411.0	414.0	419.4
37.5°	346.6	348.1	348.9	350.4	353.5	355.0	357.2	359.6	364.2	369.6	372.6
40°	305.9	305.9	306.8	308.2	310.5	311.2	313.6	316.6	319.8	324.4	327.4
42.5°	267.6	268.4	267.6	269.1	271.4	274.5	273.8	277.5	278.4	281.4	283.8
45°	237.8	237.8	236.1	237.8	237.8	240.8	240.0	241.5	240.8	242.2	240.8
47.5°	209.4	210.1	209.4	210.1	210.1	210.1	210.9	209.4	210.1	207.8	203.1
50°	187.1	187.9	186.4	187.1	186.4	185.5	186.4	184.0	183.2	180.1	175.6
52.5°	167.9	167.1	166.4	166.4	166.4	165.6	164.9	162.5	160.2	157.1	151.9
55°	151.0	150.2	149.5	149.5	148.0	147.2	147.2	144.9	142.6	138.8	132.6
57.5°	135.8	135.0	134.1	134.1	133.4	131.9	131.9	129.6	126.5	121.9	116.5
60°	121.1	121.1	121.1	120.4	120.4	118.9	118.9	116.5	113.5	108.9	102.8
62.5°	108.1	107.4	107.4	107.4	107.4	106.6	105.8	104.2	101.2	96.6	91.2
65°	92.8	92.8	92.8	92.8	92.0	92.0	92.0	89.8	88.1	83.6	78.2
67.5°	75.9	75.9	75.9	75.9	75.1	75.9	75.9	74.4	72.9	68.2	63.6
70°	60.6	59.8	59.0	59.8	59.0	59.0	59.8	58.2	57.5	53.6	49.1
72.5°	44.5	45.2	44.5	44.5	44.5	43.8	44.5	43.8	42.1	39.1	36.0
75°	31.4	32.2	32.2	31.4	31.4	31.4	30.6	30.6	29.1	26.9	25.2
77.5°	21.5	21.5	21.5	21.5	20.8	20.8	20.8	19.9	19.1	17.6	16.1
80°	13.8	13.8	13.8	13.8	13.0	13.0	13.0	12.2	12.2	10.8	9.2
82.5°	8.4	8.4	8.4	8.4	8.4	8.4	7.6	7.6	6.9	6.1	5.4
85°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	3.9	3.9	3.1	2.2
87.5°	1.5	1.5	2.2	2.2	2.2	2.2	2.2	2.2	1.5	1.5	1.5
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°	663.2	663.2	663.2	663.2	663.2	663.2	663.2	663.2	663.2	663.2	663.2
2.5°	660.1	660.9	660.9	660.9	663.2	664.0	661.8	659.4	664.0	663.2	664.8
5°	652.5	654.8	656.4	657.1	659.4	660.9	658.6	657.9	661.8	662.5	663.2
7.5°	643.2	647.1	651.0	652.5	655.6	657.1	656.4	656.4	660.9	662.5	662.5
10°	637.1	642.5	647.1	651.0	654.8	657.1	657.1	657.9	663.2	664.8	666.2
12.5°	635.6	642.5	648.6	654.0	657.1	660.9	661.8	664.0	669.4	671.6	671.6
15°	631.8	641.0	648.6	655.6	660.1	664.8	666.2	670.9	677.0	678.6	680.1
17.5°	624.9	634.1	643.2	651.8	657.9	661.8	666.2	670.9	678.6	680.9	681.6
20°	612.6	623.4	632.5	641.0	647.1	652.5	657.1	662.5	669.4	672.4	673.2
22.5°	594.2	605.0	614.1	623.4	629.5	634.1	638.8	644.9	651.8	654.8	654.8
25°	572.0	582.0	591.9	598.9	605.0	610.4	612.6	619.5	626.4	630.2	630.2
27.5°	543.6	552.9	562.0	569.8	573.5	578.1	582.0	588.1	593.5	596.5	599.6
30°	507.6	516.8	525.2	532.9	537.5	542.1	545.9	550.5	555.9	559.8	560.5
32.5°	468.5	476.1	484.6	492.2	496.9	498.4	502.2	506.9	511.4	514.5	515.2
35°	425.5	430.9	436.2	443.1	447.8	447.8	451.6	454.6	458.5	465.4	463.9
37.5°	374.9	382.6	386.4	388.8	391.8	394.9	395.6	399.5	404.1	405.6	407.9
40°	327.4	329.8	332.0	332.0	335.1	335.1	335.1	335.9	340.4	341.2	344.2
42.5°	279.9	279.9	277.5	275.2	276.0	275.2	271.4	271.4	273.8	276.8	276.8
45°	235.4	230.0	223.1	217.8	213.9	212.4	207.8	207.8	207.0	207.8	210.9
47.5°	197.9	188.6	177.1	166.4	162.5	159.5	152.6	149.5	148.0	148.8	150.2
50°	166.4	156.4	143.4	130.4	123.5	119.6	111.1	105.8	105.0	103.5	106.6
52.5°	143.4	131.1	117.2	102.0	95.1	89.0	79.8	75.1	72.1	72.1	72.9
55°	123.5	110.4	95.1	79.8	72.9	68.2	59.0	52.9	49.9	49.1	51.4
57.5°	106.6	94.2	79.0	63.6	56.8	51.4	42.1	36.8	34.5	33.0	33.8
60°	93.5	81.2	66.0	51.4	45.2	39.1	31.4	25.2	22.2	22.2	23.0
62.5°	81.2	69.8	56.0	42.1	36.8	31.4	23.0	17.6	15.4	14.6	15.4
65°	69.0	58.2	46.8	35.2	29.9	25.2	18.4	13.8	10.8	10.0	10.8
67.5°	56.0	47.5	37.6	28.4	23.8	19.9	13.8	10.0	7.6	6.9	7.6
70°	43.8	36.0	28.4	20.8	17.6	14.6	10.0	7.6	5.4	4.6	5.4
72.5°	31.4	26.1	19.9	14.6	12.2	10.0	6.9	5.4	3.9	3.1	3.9
75°	21.5	17.6	13.0	9.2	7.6	6.9	4.6	3.1	2.2	2.2	2.2
77.5°	13.8	10.8	8.4	6.1	4.6	3.9	2.2	1.5	1.5	1.5	1.5
80°	7.6	6.1	4.6	3.1	2.2	2.2	1.5	1.5	0.8	0.8	0.8
82.5°	4.6	3.1	2.2	1.5	1.5	0.8	0.8	0.8	0.8	0.8	0.8
85°	2.2	1.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
87.5°	0.8	0.8	0.8	0.8	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):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	663.2	663.2	663.2	663.2	663.2	663.2	663.2	663.2	663.2	663.2	663.2
2.5°	661.8	662.5	660.1	663.2	660.9	664.0	664.0	660.9	661.8	660.1	663.2
5°	660.1	660.1	658.6	660.9	657.9	660.9	660.1	654.8	656.4	653.2	656.4
7.5°	660.1	658.6	656.4	658.6	654.8	657.1	654.0	648.6	647.1	643.2	643.2
10°	662.5	660.1	657.1	657.9	654.0	654.8	650.2	642.5	640.2	635.6	634.1
12.5°	667.9	665.5	660.9	662.5	657.1	657.1	651.0	641.8	637.1	631.0	629.5
15°	675.5	671.6	666.2	667.1	661.8	658.6	651.0	640.2	634.1	625.6	623.4
17.5°	677.0	673.2	666.2	666.2	659.4	655.6	646.4	634.1	626.4	618.0	613.4
20°	668.6	664.8	657.1	656.4	650.2	644.9	634.9	622.6	614.9	605.8	601.9
22.5°	651.0	646.4	639.5	638.8	632.5	629.5	618.8	606.5	598.9	589.6	586.5
25°	624.9	622.6	615.8	614.9	609.5	605.8	596.5	585.0	578.1	568.9	565.9
27.5°	594.2	591.9	585.0	585.0	578.9	576.6	568.1	557.4	552.0	543.6	539.8
30°	557.4	554.4	550.5	549.8	544.4	542.1	534.4	524.5	519.1	512.1	510.6
32.5°	513.8	511.4	509.1	508.4	503.0	500.6	495.4	485.4	480.8	474.6	472.2
35°	463.1	461.6	459.2	458.5	456.2	453.9	448.5	440.9	438.6	434.0	431.6
37.5°	404.9	406.4	404.9	404.9	402.5	403.2	398.8	394.1	391.8	388.8	387.2
40°	342.0	345.0	347.4	347.4	346.6	349.6	348.9	345.0	344.2	342.8	342.0
42.5°	278.4	279.9	284.5	287.5	286.8	294.4	295.2	298.2	300.5	299.0	299.8
45°	211.6	216.2	222.4	225.4	229.2	239.2	244.6	250.8	256.1	259.1	258.4
47.5°	152.6	158.0	164.9	169.5	176.4	188.6	202.4	210.1	217.8	221.6	225.4
50°	110.4	115.8	124.2	131.1	135.8	152.6	167.1	177.1	185.5	190.9	194.8
52.5°	77.5	83.6	92.8	98.9	105.8	121.9	138.8	150.2	159.5	166.4	170.2
55°	53.6	60.6	69.0	75.1	82.8	99.6	115.8	128.0	138.0	144.1	148.8
57.5°	37.6	43.8	52.1	57.5	65.1	81.2	97.4	109.6	119.6	125.8	131.1
60°	25.2	31.4	39.9	45.2	51.4	67.5	82.0	95.1	104.2	110.4	115.8
62.5°	17.6	23.0	31.4	36.8	42.1	56.0	69.8	81.2	90.5	97.4	102.0
65°	13.8	18.4	25.2	29.9	35.2	46.8	58.2	68.2	77.5	84.4	87.4
67.5°	10.0	14.6	19.9	23.8	27.6	37.6	47.5	55.2	63.6	69.0	72.9
70°	6.9	10.0	14.6	17.6	20.8	28.4	36.0	42.9	49.1	52.9	56.0
72.5°	5.4	6.9	10.0	12.2	14.6	19.9	26.1	31.4	36.0	39.1	42.1
75°	3.1	4.6	6.9	8.4	10.0	13.8	17.6	21.5	24.5	26.9	28.4
77.5°	1.5	2.2	3.9	4.6	6.1	8.4	11.5	13.8	16.1	17.6	19.1
80°	1.5	1.5	2.2	2.2	3.1	4.6	6.1	7.6	9.2	10.8	11.5
82.5°	0.8	0.8	1.5	1.5	1.5	2.2	3.1	4.6	5.4	6.1	6.9
85°	0.8	0.8	0.8	0.8	0.8	1.5	1.5	2.2	3.1	3.9	3.9
87.5°	0.0	0.0	0.8	0.8	0.8	0.8	0.8	1.5	1.5	1.5	2.2
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°	663.2	663.2	663.2	663.2	663.2	663.2	663.2	663.2
2.5°	660.9	662.5	661.8	663.2	660.9	660.1	661.8	659.4
5°	652.5	653.2	652.5	652.5	651.0	649.4	651.0	648.6
7.5°	639.5	639.5	637.1	637.1	634.1	632.5	632.5	631.8
10°	628.8	626.4	624.1	624.9	620.2	618.8	618.0	617.2
12.5°	623.4	621.9	618.0	618.0	613.4	611.9	611.1	610.4
15°	617.2	614.1	611.1	610.4	606.5	605.0	604.2	602.6
17.5°	606.5	604.2	600.4	600.4	596.5	595.8	594.2	593.5
20°	595.0	591.9	588.9	588.9	584.2	584.2	582.0	582.8
22.5°	578.9	576.6	573.5	573.5	569.8	568.9	566.6	565.9
25°	559.8	556.6	554.4	553.6	550.5	549.0	548.2	546.6
27.5°	534.4	532.1	529.9	528.2	524.5	523.6	521.4	522.1
30°	503.0	501.5	500.6	499.1	494.5	493.0	493.0	490.8
32.5°	468.5	466.1	464.6	462.4	458.5	457.8	455.5	456.2
35°	426.2	423.2	421.0	421.8	417.1	416.4	414.8	415.6
37.5°	382.6	379.5	376.5	375.8	371.9	371.9	369.6	369.6
40°	337.4	334.2	332.8	332.8	328.1	328.9	326.6	325.9
42.5°	296.8	293.6	292.9	292.1	289.9	289.0	286.8	287.5
45°	258.4	257.6	257.6	256.1	253.8	253.0	253.8	253.8
47.5°	224.6	225.4	224.6	224.6	223.1	224.6	223.1	223.9
50°	196.2	197.9	197.9	197.9	197.0	197.9	197.9	198.6
52.5°	172.5	174.9	174.0	174.9	174.0	175.6	174.9	175.6
55°	151.9	153.4	154.1	154.9	154.9	154.9	154.9	154.9
57.5°	132.6	135.0	135.8	136.5	136.5	138.0	136.5	136.5
60°	117.2	119.6	120.4	121.1	121.1	121.9	120.4	121.1
62.5°	103.5	105.8	105.8	106.6	106.6	106.6	105.0	105.8
65°	89.8	90.5	91.2	91.2	90.5	90.5	89.8	90.5
67.5°	74.4	75.1	74.4	74.4	73.6	73.6	72.1	72.9
70°	57.5	57.5	58.2	57.5	56.8	57.5	56.8	56.0
72.5°	42.9	42.9	42.9	42.1	42.1	41.4	42.1	42.1
75°	29.1	29.1	29.9	29.9	29.9	29.9	29.1	29.1
77.5°	19.1	19.1	19.1	19.1	19.9	19.1	19.1	19.1
80°	12.2	12.2	13.0	13.0	12.2	12.2	12.2	12.2
82.5°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
85°	4.6	4.6	4.6	4.6	3.9	3.9	3.9	3.9
87.5°	2.2	2.2	2.2	2.2	2.2	2.2	1.5	1.5
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)