

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: P252551

Luminaire Tested: **LE\_6B10D010 EC6B10209030 6LBDW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252551  
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 EC6B10209030 6LBDW1LI  
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1131.2 lumens  
Efficiency: N/A  
Efficacy: 113.1 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

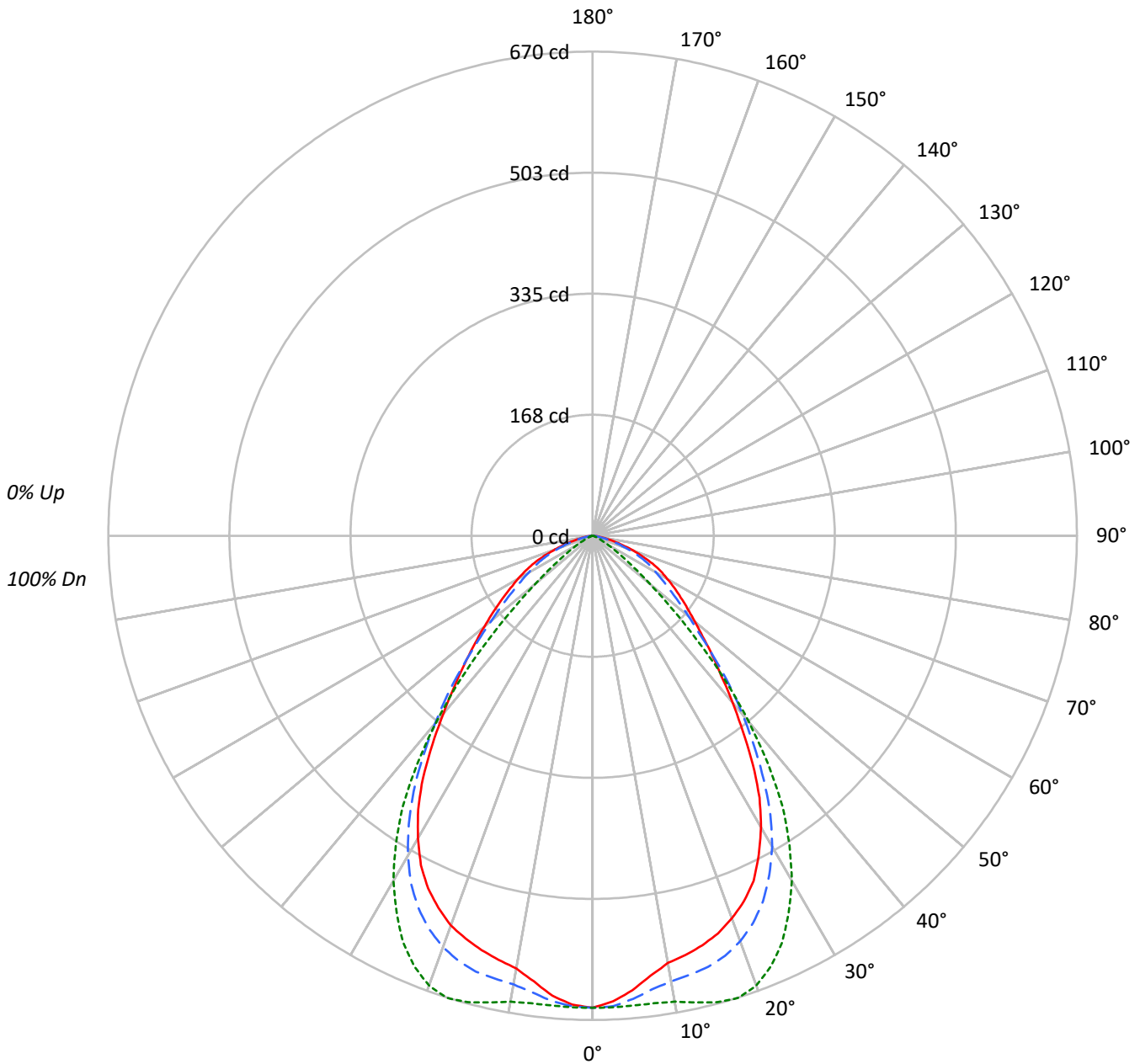
Input Watts (W): 10  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	42609	42609	42609
5°	41337	42726	41835
10°	39761	43365	40272
15°	39620	45132	40086
20°	39102	45975	39845
25°	37936	44674	38757
30°	35098	41524	36401
35°	30790	36509	32590
40°	25652	28616	27330
45°	21599	18877	23057
50°	18696	10342	19843
55°	16925	5505	17346
60°	15553	2858	15553
65°	14110	1528	13755
70°	11369	858	10510
75°	7814	555	7260
80°	5110	301	4546
85°	3368	599	2844



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.9	5.4
10°-20°	176.1	15.6
20°-30°	260.2	23.0
30°-40°	262.8	23.2
40°-50°	181.2	16.0
50°-60°	104.0	9.2
60°-70°	60.6	5.4
70°-80°	22.1	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°	497.2	44.0
0°-40°	760.0	67.2
0°-60°	1045.2	92.4
0°-90°	1131.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1131.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	653	653	653	653	653	
5°	631	643	652	646	639	59
15°	587	618	668	624	594	165
25°	527	558	621	569	538	240
35°	387	413	458	432	409	240
45°	234	237	205	252	250	182
55°	149	131	48	136	152	134
65°	91	77	10	76	89	89
75°	31	25	2	24	29	35
85°	4	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°	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1
2.5°	644.9	645.6	646.4	645.6	646.4	649.4	647.1	648.6	648.6	649.4	651.6
5°	631.2	631.2	632.8	632.0	634.2	637.2	635.0	637.2	638.0	639.5	643.2
7.5°	613.9	613.9	614.6	614.6	617.6	620.6	619.1	622.1	625.2	628.2	632.8
10°	600.2	601.8	601.8	602.5	605.5	609.4	608.6	612.4	615.4	619.9	626.0
12.5°	594.2	595.0	595.0	596.5	599.5	603.2	602.5	606.4	610.9	616.1	622.1
15°	586.6	588.2	587.4	589.0	592.0	595.8	595.0	598.8	604.0	609.4	617.6
17.5°	576.9	577.6	578.4	578.4	581.4	584.4	584.4	588.2	594.2	600.2	609.4
20°	563.2	564.8	564.8	565.5	567.8	572.4	571.6	575.4	581.4	587.4	597.2
22.5°	547.4	548.1	548.1	548.9	552.8	555.0	555.8	558.8	564.0	570.9	579.9
25°	527.0	527.8	527.0	529.2	530.8	535.4	533.9	537.6	543.6	548.9	558.0
27.5°	497.6	499.1	499.1	499.9	503.6	507.4	507.4	511.1	516.5	520.2	529.2
30°	465.9	468.1	465.9	469.6	471.1	474.1	476.5	478.8	483.2	488.5	496.9
32.5°	429.6	428.9	429.6	431.1	435.6	437.9	439.5	441.8	446.2	450.8	457.6
35°	386.6	388.1	388.9	391.9	391.9	395.6	396.4	397.9	404.8	407.8	413.0
37.5°	341.2	342.8	343.5	345.0	348.1	349.6	351.9	354.1	358.6	364.0	367.0
40°	301.2	301.2	302.0	303.5	305.8	306.5	308.9	311.9	314.9	319.4	322.4
42.5°	263.5	264.2	263.5	265.0	267.2	270.2	269.5	273.4	274.1	277.1	279.4
45°	234.1	234.1	232.5	234.1	234.1	237.1	236.4	237.9	237.1	238.6	237.1
47.5°	206.1	206.9	206.1	206.9	206.9	206.9	207.6	206.1	206.9	204.6	200.1
50°	184.2	185.0	183.5	184.2	183.5	182.8	183.5	181.2	180.5	177.5	172.9
52.5°	165.4	164.6	163.9	163.9	163.9	163.1	162.4	160.1	157.8	154.8	149.5
55°	148.8	148.0	147.2	147.2	145.8	145.0	145.0	142.8	140.5	136.6	130.6
57.5°	133.6	132.9	132.1	132.1	131.4	129.9	129.9	127.6	124.6	120.0	114.8
60°	119.2	119.2	119.2	118.5	118.5	117.0	117.0	114.8	111.8	107.2	101.1
62.5°	106.5	105.8	105.8	105.8	105.8	105.0	104.2	102.8	99.6	95.1	89.9
65°	91.4	91.4	91.4	91.4	90.6	90.6	90.6	88.4	86.9	82.2	77.0
67.5°	74.8	74.8	74.8	74.8	74.0	74.8	74.8	73.2	71.8	67.2	62.6
70°	59.6	58.9	58.1	58.9	58.1	58.1	58.9	57.4	56.6	52.9	48.4
72.5°	43.8	44.5	43.8	43.8	43.8	43.0	43.8	43.0	41.5	38.5	35.5
75°	31.0	31.8	31.8	31.0	31.0	31.0	30.2	30.2	28.8	26.4	24.9
77.5°	21.1	21.1	21.1	21.1	20.4	20.4	20.4	19.6	18.9	17.4	15.9
80°	13.6	13.6	13.6	13.6	12.9	12.9	12.9	12.1	12.1	10.6	9.0
82.5°	8.2	8.2	8.2	8.2	8.2	8.2	7.5	7.5	6.8	6.0	5.2
85°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	3.8	3.8	3.0	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°	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1
2.5°	650.1	650.9	650.9	650.9	653.1	653.9	651.6	649.4	653.9	653.1	654.6
5°	642.5	644.9	646.4	647.1	649.4	650.9	648.6	647.9	651.6	652.4	653.1
7.5°	633.5	637.2	641.0	642.5	645.6	647.1	646.4	646.4	650.9	652.4	652.4
10°	627.5	632.8	637.2	641.0	644.9	647.1	647.1	647.9	653.1	654.6	656.1
12.5°	626.0	632.8	638.8	644.1	647.1	650.9	651.6	653.9	659.1	661.4	661.4
15°	622.1	631.2	638.8	645.6	650.1	654.6	656.1	660.6	666.8	668.2	669.8
17.5°	615.4	624.4	633.5	641.8	647.9	651.6	656.1	660.6	668.2	670.5	671.2
20°	603.2	613.9	622.9	631.2	637.2	642.5	647.1	652.4	659.1	662.2	663.0
22.5°	585.1	595.8	604.8	613.9	619.9	624.4	629.0	635.0	641.8	644.9	644.9
25°	563.2	573.1	582.9	589.8	595.8	601.0	603.2	610.1	616.9	620.6	620.6
27.5°	535.4	544.4	553.5	561.0	564.8	569.4	573.1	579.1	584.4	587.4	590.5
30°	499.9	508.9	517.2	524.8	529.2	533.9	537.6	542.1	547.4	551.2	552.0
32.5°	461.4	468.9	477.2	484.8	489.2	490.8	494.6	499.1	503.6	506.6	507.4
35°	419.0	424.4	429.6	436.4	441.0	441.0	444.8	447.8	451.5	458.4	456.8
37.5°	369.2	376.8	380.5	382.9	385.9	388.9	389.6	393.4	397.9	399.4	401.8
40°	322.4	324.6	327.0	327.0	330.0	330.0	330.0	330.8	335.2	336.0	339.0
42.5°	275.6	275.6	273.4	271.1	271.9	271.1	267.2	267.2	269.5	272.6	272.6
45°	231.8	226.5	219.8	214.4	210.6	209.1	204.6	204.6	203.9	204.6	207.6
47.5°	194.8	185.8	174.4	163.9	160.1	157.0	150.2	147.2	145.8	146.5	148.0
50°	163.9	154.0	141.2	128.4	121.6	117.8	109.5	104.2	103.5	101.9	105.0
52.5°	141.2	129.1	115.5	100.4	93.6	87.6	78.5	74.0	71.0	71.0	71.8
55°	121.6	108.8	93.6	78.5	71.8	67.2	58.1	52.1	49.1	48.4	50.6
57.5°	105.0	92.9	77.8	62.6	55.9	50.6	41.5	36.2	34.0	32.5	33.2
60°	92.1	80.0	64.9	50.6	44.5	38.5	31.0	24.9	21.9	21.9	22.6
62.5°	80.0	68.8	55.1	41.5	36.2	31.0	22.6	17.4	15.1	14.4	15.1
65°	68.0	57.4	46.0	34.8	29.5	24.9	18.1	13.6	10.6	9.9	10.6
67.5°	55.1	46.9	37.0	27.9	23.4	19.6	13.6	9.9	7.5	6.8	7.5
70°	43.0	35.5	27.9	20.4	17.4	14.4	9.9	7.5	5.2	4.5	5.2
72.5°	31.0	25.6	19.6	14.4	12.1	9.9	6.8	5.2	3.8	3.0	3.8
75°	21.1	17.4	12.9	9.0	7.5	6.8	4.5	3.0	2.2	2.2	2.2
77.5°	13.6	10.6	8.2	6.0	4.5	3.8	2.2	1.5	1.5	1.5	1.5
80°	7.5	6.0	4.5	3.0	2.2	2.2	1.5	1.5	0.8	0.8	0.8
82.5°	4.5	3.0	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°	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1
2.5°	651.6	652.4	650.1	653.1	650.9	653.9	653.9	650.9	651.6	650.1	653.1
5°	650.1	650.1	648.6	650.9	647.9	650.9	650.1	644.9	646.4	643.2	646.4
7.5°	650.1	648.6	646.4	648.6	644.9	647.1	644.1	638.8	637.2	633.5	633.5
10°	652.4	650.1	647.1	647.9	644.1	644.9	640.2	632.8	630.5	626.0	624.4
12.5°	657.6	655.4	650.9	652.4	647.1	647.1	641.0	632.0	627.5	621.4	619.9
15°	665.2	661.4	656.1	656.9	651.6	648.6	641.0	630.5	624.4	616.1	613.9
17.5°	666.8	663.0	656.1	656.1	649.4	645.6	636.5	624.4	616.9	608.6	604.0
20°	658.4	654.6	647.1	646.4	640.2	635.0	625.2	613.1	605.5	596.5	592.8
22.5°	641.0	636.5	629.8	629.0	622.9	619.9	609.4	597.2	589.8	580.6	577.6
25°	615.4	613.1	606.4	605.5	600.2	596.5	587.4	576.1	569.4	560.2	557.2
27.5°	585.1	582.9	576.1	576.1	570.1	567.8	559.5	548.9	543.6	535.4	531.5
30°	548.9	545.9	542.1	541.4	536.1	533.9	526.2	516.5	511.1	504.4	502.9
32.5°	505.9	503.6	501.4	500.6	495.4	493.0	487.8	478.0	473.4	467.4	465.1
35°	456.0	454.5	452.2	451.5	449.2	447.0	441.8	434.1	431.9	427.4	425.1
37.5°	398.6	400.1	398.6	398.6	396.4	397.1	392.6	388.1	385.9	382.9	381.2
40°	336.8	339.8	342.0	342.0	341.2	344.2	343.5	339.8	339.0	337.5	336.8
42.5°	274.1	275.6	280.1	283.1	282.4	290.0	290.8	293.8	296.0	294.5	295.2
45°	208.4	212.9	219.0	222.0	225.8	235.6	240.9	246.9	252.2	255.2	254.5
47.5°	150.2	155.5	162.4	166.9	173.6	185.8	199.4	206.9	214.4	218.2	222.0
50°	108.8	114.0	122.4	129.1	133.6	150.2	164.6	174.4	182.8	188.0	191.8
52.5°	76.2	82.2	91.4	97.4	104.2	120.0	136.6	148.0	157.0	163.9	167.6
55°	52.9	59.6	68.0	74.0	81.5	98.1	114.0	126.1	135.9	142.0	146.5
57.5°	37.0	43.0	51.4	56.6	64.1	80.0	95.9	108.0	117.8	123.9	129.1
60°	24.9	31.0	39.2	44.5	50.6	66.5	80.8	93.6	102.8	108.8	114.0
62.5°	17.4	22.6	31.0	36.2	41.5	55.1	68.8	80.0	89.1	95.9	100.4
65°	13.6	18.1	24.9	29.5	34.8	46.0	57.4	67.2	76.2	83.0	86.1
67.5°	9.9	14.4	19.6	23.4	27.1	37.0	46.9	54.4	62.6	68.0	71.8
70°	6.8	9.9	14.4	17.4	20.4	27.9	35.5	42.2	48.4	52.1	55.1
72.5°	5.2	6.8	9.9	12.1	14.4	19.6	25.6	31.0	35.5	38.5	41.5
75°	3.0	4.5	6.8	8.2	9.9	13.6	17.4	21.1	24.1	26.4	27.9
77.5°	1.5	2.2	3.8	4.5	6.0	8.2	11.4	13.6	15.9	17.4	18.9
80°	1.5	1.5	2.2	2.2	3.0	4.5	6.0	7.5	9.0	10.6	11.4
82.5°	0.8	0.8	1.5	1.5	1.5	2.2	3.0	4.5	5.2	6.0	6.8
85°	0.8	0.8	0.8	0.8	0.8	1.5	1.5	2.2	3.0	3.8	3.8
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°	653.1	653.1	653.1	653.1	653.1	653.1	653.1	653.1
2.5°	650.9	652.4	651.6	653.1	650.9	650.1	651.6	649.4
5°	642.5	643.2	642.5	642.5	641.0	639.5	641.0	638.8
7.5°	629.8	629.8	627.5	627.5	624.4	622.9	622.9	622.1
10°	619.1	616.9	614.6	615.4	610.9	609.4	608.6	607.9
12.5°	613.9	612.4	608.6	608.6	604.0	602.5	601.8	601.0
15°	607.9	604.8	601.8	601.0	597.2	595.8	595.0	593.5
17.5°	597.2	595.0	591.2	591.2	587.4	586.6	585.1	584.4
20°	585.9	582.9	579.9	579.9	575.4	575.4	573.1	573.9
22.5°	570.1	567.8	564.8	564.8	561.0	560.2	558.0	557.2
25°	551.2	548.1	545.9	545.1	542.1	540.6	539.9	538.4
27.5°	526.2	524.0	521.8	520.2	516.5	515.8	513.5	514.2
30°	495.4	493.8	493.0	491.5	487.0	485.5	485.5	483.2
32.5°	461.4	459.1	457.6	455.2	451.5	450.8	448.5	449.2
35°	419.9	416.8	414.5	415.2	410.8	410.0	408.5	409.2
37.5°	376.8	373.8	370.8	370.0	366.2	366.2	364.0	364.0
40°	332.2	329.2	327.8	327.8	323.1	323.9	321.6	320.9
42.5°	292.2	289.2	288.4	287.6	285.4	284.6	282.4	283.1
45°	254.5	253.8	253.8	252.2	249.9	249.1	249.9	249.9
47.5°	221.2	222.0	221.2	221.2	219.8	221.2	219.8	220.5
50°	193.2	194.8	194.8	194.8	194.0	194.8	194.8	195.5
52.5°	169.9	172.1	171.4	172.1	171.4	172.9	172.1	172.9
55°	149.5	151.0	151.8	152.5	152.5	152.5	152.5	152.5
57.5°	130.6	132.9	133.6	134.4	134.4	135.9	134.4	134.4
60°	115.5	117.8	118.5	119.2	119.2	120.0	118.5	119.2
62.5°	101.9	104.2	104.2	105.0	105.0	105.0	103.5	104.2
65°	88.4	89.1	89.9	89.9	89.1	89.1	88.4	89.1
67.5°	73.2	74.0	73.2	73.2	72.5	72.5	71.0	71.8
70°	56.6	56.6	57.4	56.6	55.9	56.6	55.9	55.1
72.5°	42.2	42.2	42.2	41.5	41.5	40.8	41.5	41.5
75°	28.8	28.8	29.5	29.5	29.5	29.5	28.8	28.8
77.5°	18.9	18.9	18.9	18.9	19.6	18.9	18.9	18.9
80°	12.1	12.1	12.9	12.9	12.1	12.1	12.1	12.1
82.5°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
85°	4.5	4.5	4.5	4.5	3.8	3.8	3.8	3.8
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)