

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: io LED

Report Number: P252684

Luminaire Tested: **LD6B20D010 EU6B10209050 6LBDW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252684
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-9)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6B20D010 EU6B10209050 6LBDW1H
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1658.0 lumens
Efficiency: N/A
Efficacy: 79.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.25 / 1.21
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

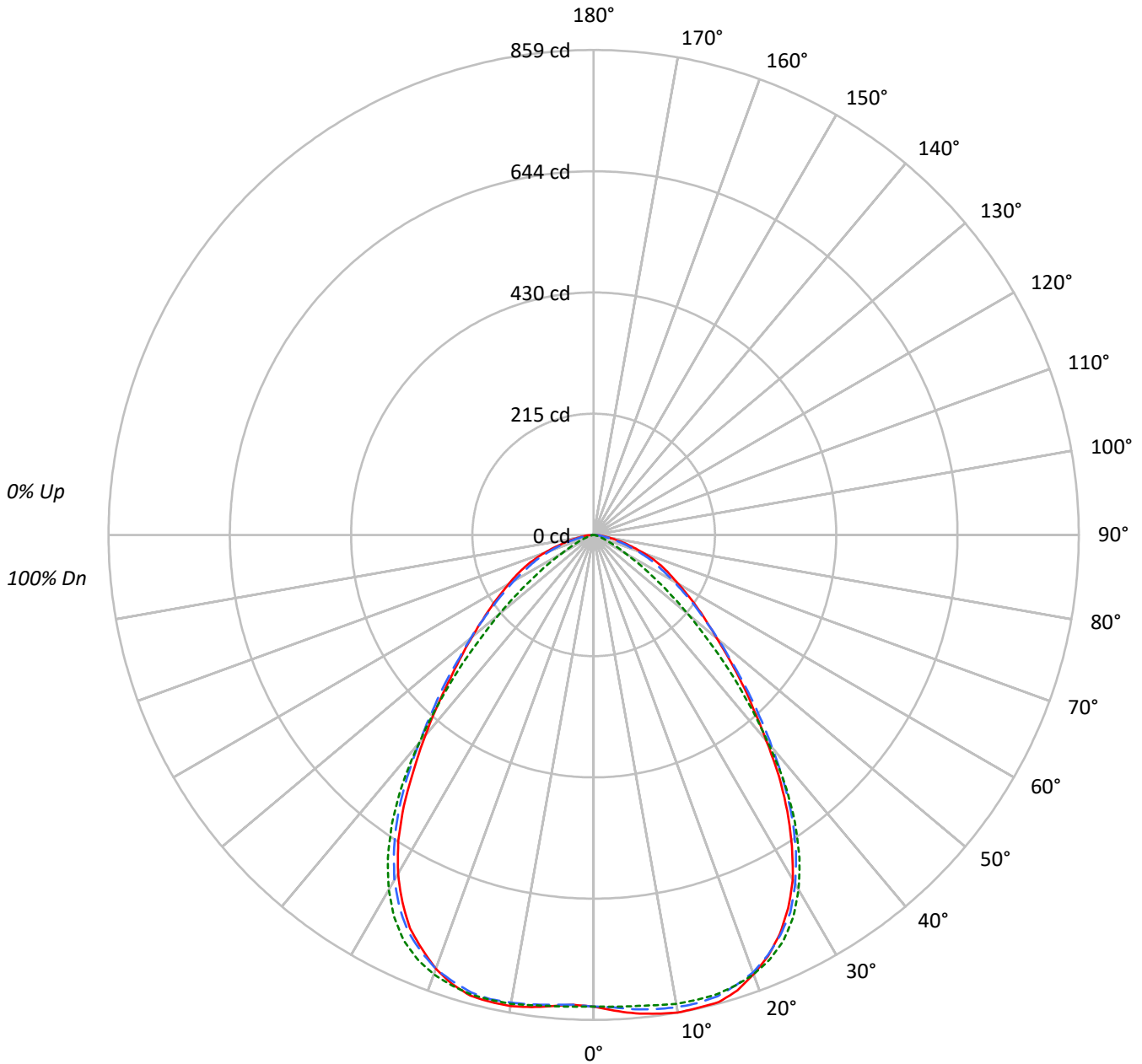
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	104	101	109	105	102	99	101	98	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	75	93	85	79	74	82	77	73	80	75	71	77	74	70	68																			
4	89	78	71	65	87	77	70	65	75	69	64	73	67	63	71	66	62	61																			
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54																			
6	77	65	57	52	75	64	57	51	63	56	51	61	55	51	59	54	50	48																			
7	72	60	52	47	70	59	52	46	58	51	46	56	50	46	55	50	45	44																			
8	67	55	47	42	66	54	47	42	53	47	42	52	46	42	51	45	41	40																			
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36																			
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	54495	54495	54495
5°	55712	54861	54861
10°	56906	55886	56125
15°	57857	56897	57060
20°	57500	57500	56764
25°	56134	57156	55371
30°	53140	54654	52161
35°	47611	49499	46671
40°	40454	40956	39449
45°	34230	31287	33031
50°	28896	22065	28541
55°	25399	14241	25126
60°	22508	8481	22665
65°	20794	5110	20794
70°	18026	2938	17587
75°	14292	1790	13410
80°	10670	1315	10219
85°	9731	898	8833



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.4	4.9
10°-20°	238.0	14.4
20°-30°	358.0	21.6
30°-40°	376.4	22.7
40°-50°	281.2	17.0
50°-60°	175.0	10.6
60°-70°	99.5	6.0
70°-80°	41.0	2.5
80°-90°	8.5	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°	676.4	40.8
0°-40°	1052.8	63.5
0°-60°	1509.0	91.0
0°-90°	1658.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1658.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	835	835	835	835	835	
5°	851	844	838	835	838	81
15°	857	846	842	839	845	241
25°	780	782	794	776	769	357
35°	598	613	622	604	586	371
45°	371	379	339	372	358	287
55°	223	219	125	215	221	201
65°	135	120	33	120	135	133
75°	57	45	7	44	53	62
85°	13	8	1	7	12	14
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°	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3
2.5°	843.6	842.4	843.6	841.2	840.1	840.1	841.2	838.9	837.7	838.9	837.7
5°	850.7	848.3	849.5	848.3	846.0	846.0	847.2	843.6	843.6	844.8	843.6
7.5°	855.4	855.4	855.4	853.1	851.9	850.7	853.1	849.5	848.3	848.3	847.2
10°	859.0	857.8	859.0	856.6	854.2	853.1	855.4	853.1	850.7	853.1	849.5
12.5°	857.8	857.8	857.8	856.6	854.2	853.1	855.4	851.9	850.7	851.9	849.5
15°	856.6	853.1	854.2	853.1	849.5	849.5	850.7	847.2	844.8	848.3	846.0
17.5°	846.0	843.6	844.8	842.4	840.1	838.9	840.1	838.9	836.5	838.9	836.5
20°	828.2	828.2	829.4	827.1	824.7	823.5	825.9	823.5	821.2	824.7	824.7
22.5°	807.0	807.0	807.0	805.8	804.6	804.6	804.6	803.4	802.3	804.6	805.8
25°	779.8	778.6	779.8	781.0	779.8	778.6	779.8	779.8	777.4	782.2	782.2
27.5°	745.5	745.5	747.9	746.7	746.7	745.5	747.9	747.9	746.7	750.3	753.8
30°	705.4	703.0	705.4	705.4	706.5	706.5	707.7	707.7	707.7	711.3	713.6
32.5°	653.4	654.6	658.1	656.9	655.7	659.3	659.3	661.7	662.8	665.2	666.4
35°	597.8	599.0	599.0	600.2	602.6	600.2	606.1	604.9	606.1	610.8	613.2
37.5°	538.8	535.2	541.1	538.8	540.0	540.0	542.3	543.5	547.0	553.0	553.0
40°	475.0	476.2	478.5	479.7	480.9	480.9	480.9	484.4	485.6	492.7	491.5
42.5°	419.4	419.4	421.8	423.0	423.0	423.0	423.0	426.5	428.9	431.3	433.6
45°	371.0	367.5	369.8	369.8	372.2	371.0	373.4	375.7	376.9	380.4	379.3
47.5°	324.9	323.7	324.9	326.1	324.9	326.1	327.3	328.5	329.6	329.6	329.6
50°	284.7	284.7	285.9	287.1	287.1	287.1	287.1	288.3	288.3	290.7	288.3
52.5°	251.7	252.8	252.8	251.7	252.8	252.8	254.0	254.0	252.8	252.8	249.3
55°	223.3	222.1	223.3	222.1	223.3	223.3	222.1	222.1	220.9	219.8	218.6
57.5°	196.1	196.1	196.1	196.1	195.0	196.1	195.0	193.8	193.8	191.4	187.9
60°	172.5	172.5	172.5	172.5	172.5	171.3	172.5	171.3	169.0	166.6	161.9
62.5°	152.4	151.2	152.4	151.2	151.2	150.1	150.1	148.9	146.5	144.1	139.4
65°	134.7	135.9	134.7	134.7	133.5	132.3	132.3	131.1	127.6	125.2	120.5
67.5°	115.8	114.6	114.6	114.6	113.4	113.4	113.4	111.1	108.7	105.2	100.4
70°	94.5	94.5	94.5	93.3	93.3	92.2	92.2	91.0	88.6	86.3	80.3
72.5°	74.4	74.4	74.4	72.1	73.3	72.1	72.1	69.7	68.5	65.0	61.4
75°	56.7	56.7	55.5	55.5	54.3	53.2	53.2	52.0	50.8	48.4	44.9
77.5°	41.4	41.4	41.4	40.2	39.0	37.8	37.8	36.6	35.4	34.3	31.9
80°	28.4	28.4	28.4	28.4	27.2	26.0	26.0	24.8	24.8	23.6	21.3
82.5°	18.9	18.9	18.9	18.9	17.7	17.7	17.7	16.5	15.4	15.4	13.0
85°	13.0	13.0	11.8	11.8	11.8	11.8	10.6	10.6	9.5	8.3	8.3
87.5°	7.1	7.1	7.1	7.1	5.9	5.9	5.9	5.9	4.7	4.7	3.5
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°	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3
2.5°	841.2	841.2	840.1	836.5	837.7	836.5	837.7	836.5	833.0	836.5	833.0
5°	846.0	847.2	844.8	840.1	841.2	840.1	840.1	838.9	835.3	837.7	835.3
7.5°	850.7	849.5	848.3	843.6	844.8	843.6	843.6	841.2	837.7	840.1	836.5
10°	853.1	853.1	850.7	846.0	846.0	844.8	846.0	844.8	840.1	843.6	841.2
12.5°	853.1	851.9	851.9	846.0	847.2	846.0	847.2	844.8	841.2	843.6	842.4
15°	849.5	849.5	848.3	842.4	843.6	843.6	844.8	842.4	838.9	842.4	840.1
17.5°	842.4	842.4	841.2	836.5	838.9	838.9	840.1	837.7	834.2	836.5	836.5
20°	828.2	829.4	829.4	825.9	828.2	828.2	829.4	828.2	827.1	828.2	825.9
22.5°	811.7	814.1	814.1	810.5	812.9	812.9	816.4	815.2	812.9	814.1	812.9
25°	786.9	789.3	791.6	789.3	791.6	791.6	795.2	794.0	791.6	794.0	790.4
27.5°	758.5	759.7	762.1	759.7	763.3	762.1	765.6	764.4	760.9	764.4	763.3
30°	718.4	723.1	726.6	723.1	726.6	726.6	729.0	727.8	726.6	725.5	725.5
32.5°	673.5	678.2	678.2	677.0	679.4	679.4	680.6	678.2	677.0	678.2	679.4
35°	617.9	620.3	622.7	621.5	622.7	623.8	622.7	623.8	620.3	621.5	621.5
37.5°	557.7	560.0	560.0	556.5	558.9	558.9	556.5	556.5	554.1	556.5	551.8
40°	493.9	491.5	492.7	490.3	488.0	488.0	486.8	482.1	479.7	480.9	482.1
42.5°	431.3	431.3	427.7	421.8	415.9	415.9	412.4	410.0	405.3	407.6	406.4
45°	378.1	372.2	367.5	358.0	354.5	352.1	346.2	340.3	337.9	339.1	337.9
47.5°	327.3	322.6	310.7	297.7	294.2	290.7	283.6	276.5	274.1	271.7	271.7
50°	284.7	276.5	263.5	249.3	243.4	237.5	228.0	220.9	216.2	217.4	217.4
52.5°	245.8	236.3	220.9	203.2	196.1	189.0	180.8	172.5	169.0	167.8	167.8
55°	211.5	200.9	185.5	165.4	159.5	151.2	140.6	131.1	126.4	125.2	127.6
57.5°	180.8	171.3	153.6	133.5	126.4	118.2	107.5	99.2	93.3	92.2	93.3
60°	156.0	143.0	127.6	108.7	99.2	92.2	80.3	73.3	67.3	65.0	66.2
62.5°	131.1	119.3	104.0	85.1	78.0	70.9	60.3	52.0	47.3	46.1	47.3
65°	112.2	100.4	86.3	69.7	62.6	55.5	46.1	37.8	34.3	33.1	34.3
67.5°	93.3	82.7	70.9	55.5	49.6	43.7	34.3	28.4	23.6	22.4	23.6
70°	75.6	66.2	54.3	43.7	37.8	33.1	26.0	20.1	16.5	15.4	16.5
72.5°	56.7	49.6	41.4	31.9	28.4	24.8	18.9	14.2	11.8	10.6	11.8
75°	41.4	35.4	29.5	22.4	20.1	17.7	13.0	9.5	8.3	7.1	8.3
77.5°	28.4	24.8	20.1	15.4	13.0	11.8	8.3	7.1	5.9	4.7	4.7
80°	18.9	16.5	13.0	10.6	9.5	8.3	5.9	4.7	3.5	3.5	3.5
82.5°	11.8	9.5	8.3	5.9	4.7	4.7	3.5	2.4	2.4	2.4	2.4
85°	7.1	5.9	4.7	3.5	2.4	2.4	1.2	1.2	1.2	1.2	1.2
87.5°	3.5	2.4	2.4	1.2	1.2	1.2	1.2	1.2	0.0	0.0	1.2
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):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3
2.5°	835.3	833.0	833.0	834.2	835.3	836.5	834.2	833.0	833.0	836.5	834.2
5°	835.3	834.2	834.2	834.2	836.5	837.7	835.3	834.2	835.3	838.9	837.7
7.5°	838.9	836.5	837.7	837.7	838.9	841.2	838.9	837.7	838.9	842.4	840.1
10°	841.2	838.9	840.1	838.9	842.4	843.6	841.2	840.1	841.2	846.0	844.8
12.5°	842.4	841.2	841.2	840.1	843.6	844.8	842.4	841.2	842.4	846.0	844.8
15°	840.1	838.9	838.9	838.9	841.2	843.6	840.1	838.9	838.9	842.4	841.2
17.5°	835.3	833.0	833.0	833.0	834.2	835.3	831.8	830.6	829.4	833.0	831.8
20°	827.1	824.7	822.3	822.3	823.5	823.5	821.2	817.6	817.6	818.8	816.4
22.5°	811.7	810.5	808.2	807.0	809.3	808.2	803.4	799.9	798.7	799.9	797.5
25°	790.4	788.1	786.9	785.7	786.9	785.7	781.0	776.3	776.3	776.3	772.7
27.5°	760.9	758.5	757.4	757.4	758.5	756.2	751.4	746.7	744.4	744.4	740.8
30°	723.1	723.1	721.9	720.7	719.5	719.5	712.5	707.7	705.4	706.5	704.2
32.5°	677.0	675.8	674.6	671.1	672.3	671.1	665.2	661.7	658.1	655.7	654.6
35°	617.9	617.9	616.8	616.8	616.8	615.6	609.7	606.1	603.8	602.6	599.0
37.5°	553.0	551.8	550.6	550.6	550.6	550.6	547.0	543.5	543.5	542.3	540.0
40°	479.7	480.9	482.1	480.9	484.4	488.0	483.2	480.9	479.7	483.2	478.5
42.5°	408.8	407.6	413.5	414.7	414.7	420.6	421.8	423.0	421.8	424.2	424.2
45°	340.3	339.1	345.0	347.4	353.3	360.4	363.9	369.8	372.2	374.5	372.2
47.5°	275.3	280.0	284.7	290.7	295.4	307.2	314.3	320.2	322.6	326.1	326.1
50°	220.9	225.7	233.9	238.7	244.6	258.8	270.6	278.8	283.6	287.1	285.9
52.5°	170.1	178.4	189.0	193.8	202.0	218.6	231.6	241.0	246.9	250.5	251.7
55°	131.1	138.2	148.9	156.0	164.2	182.0	198.5	209.1	215.0	219.8	222.1
57.5°	96.9	105.2	117.0	122.9	132.3	152.4	166.6	179.6	186.7	192.6	193.8
60°	70.9	79.2	89.8	96.9	106.3	126.4	143.0	154.8	163.0	167.8	170.1
62.5°	50.8	59.1	69.7	76.8	85.1	102.8	119.3	131.1	139.4	145.3	148.9
65°	36.6	44.9	55.5	61.4	68.5	85.1	100.4	112.2	120.5	127.6	130.0
67.5°	27.2	33.1	42.5	48.4	55.5	68.5	81.5	92.2	100.4	106.3	108.7
70°	20.1	24.8	33.1	36.6	41.4	53.2	63.8	73.3	80.3	85.1	87.4
72.5°	14.2	17.7	23.6	27.2	30.7	40.2	48.4	55.5	60.3	65.0	67.3
75°	9.5	11.8	16.5	18.9	21.3	28.4	34.3	40.2	43.7	47.3	48.4
77.5°	5.9	8.3	11.8	13.0	15.4	18.9	23.6	27.2	29.5	31.9	34.3
80°	3.5	4.7	7.1	8.3	9.5	13.0	15.4	17.7	20.1	22.4	23.6
82.5°	2.4	3.5	4.7	4.7	5.9	7.1	9.5	11.8	13.0	14.2	15.4
85°	1.2	1.2	2.4	2.4	3.5	3.5	4.7	5.9	7.1	8.3	9.5
87.5°	1.2	1.2	1.2	1.2	2.4	2.4	3.5	3.5	3.5	4.7	4.7
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°	835.3	835.3	835.3	835.3	835.3	835.3	835.3	835.3
2.5°	831.8	835.3	831.8	834.2	833.0	833.0	831.8	833.0
5°	835.3	840.1	835.3	838.9	836.5	836.5	836.5	837.7
7.5°	838.9	843.6	840.1	843.6	842.4	841.2	841.2	843.6
10°	842.4	846.0	843.6	847.2	846.0	844.8	844.8	847.2
12.5°	842.4	847.2	844.8	848.3	847.2	846.0	846.0	847.2
15°	838.9	844.8	841.2	844.8	843.6	842.4	842.4	844.8
17.5°	828.2	833.0	830.6	833.0	833.0	831.8	833.0	834.2
20°	814.1	817.6	815.2	817.6	817.6	815.2	816.4	817.6
22.5°	794.0	797.5	795.2	797.5	796.3	795.2	795.2	794.0
25°	769.2	773.9	770.4	772.7	770.4	768.0	768.0	769.2
27.5°	738.5	742.0	737.3	739.6	737.3	734.9	734.9	733.7
30°	698.3	699.5	695.9	698.3	695.9	694.7	692.4	692.4
32.5°	649.8	651.0	647.5	647.5	645.1	645.1	640.4	643.9
35°	593.1	594.3	593.1	591.9	588.4	587.2	586.0	586.0
37.5°	534.0	534.0	530.5	529.3	527.0	524.6	525.8	522.2
40°	473.8	472.6	469.1	470.2	469.1	465.5	464.3	463.2
42.5°	417.1	417.1	413.5	414.7	412.4	411.2	407.6	408.8
45°	367.5	367.5	363.9	363.9	362.7	359.2	360.4	358.0
47.5°	322.6	322.6	321.4	321.4	317.8	316.6	316.6	316.6
50°	283.6	283.6	283.6	283.6	282.4	281.2	280.0	281.2
52.5°	250.5	252.8	251.7	251.7	250.5	249.3	248.1	248.1
55°	220.9	222.1	222.1	223.3	222.1	220.9	222.1	220.9
57.5°	195.0	197.3	197.3	197.3	197.3	197.3	196.1	195.0
60°	172.5	173.7	173.7	174.9	174.9	174.9	173.7	173.7
62.5°	150.1	152.4	153.6	153.6	154.8	153.6	153.6	153.6
65°	132.3	134.7	135.9	134.7	135.9	135.9	134.7	134.7
67.5°	111.1	113.4	113.4	113.4	113.4	114.6	113.4	113.4
70°	89.8	92.2	91.0	92.2	92.2	92.2	92.2	92.2
72.5°	68.5	69.7	70.9	70.9	72.1	70.9	70.9	70.9
75°	49.6	52.0	52.0	52.0	52.0	53.2	53.2	53.2
77.5°	35.4	36.6	36.6	37.8	37.8	37.8	37.8	39.0
80°	24.8	24.8	26.0	26.0	27.2	27.2	27.2	27.2
82.5°	16.5	17.7	17.7	17.7	17.7	17.7	17.7	17.7
85°	9.5	10.6	10.6	10.6	10.6	11.8	11.8	11.8
87.5°	5.9	5.9	5.9	5.9	5.9	5.9	4.7	4.7
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)