

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: P252682

Luminaire Tested: **LD6B20D010 EU6B10209035 6LBDW1H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252682
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 EU6B10209035 6LBDW1H
Description: PORTFOLIO 6 INCH DOUBLE WALLWASH RECESSED DOWNLIGHT, WITH HAZE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1648.0 lumens
Efficiency: N/A
Efficacy: 79.2 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

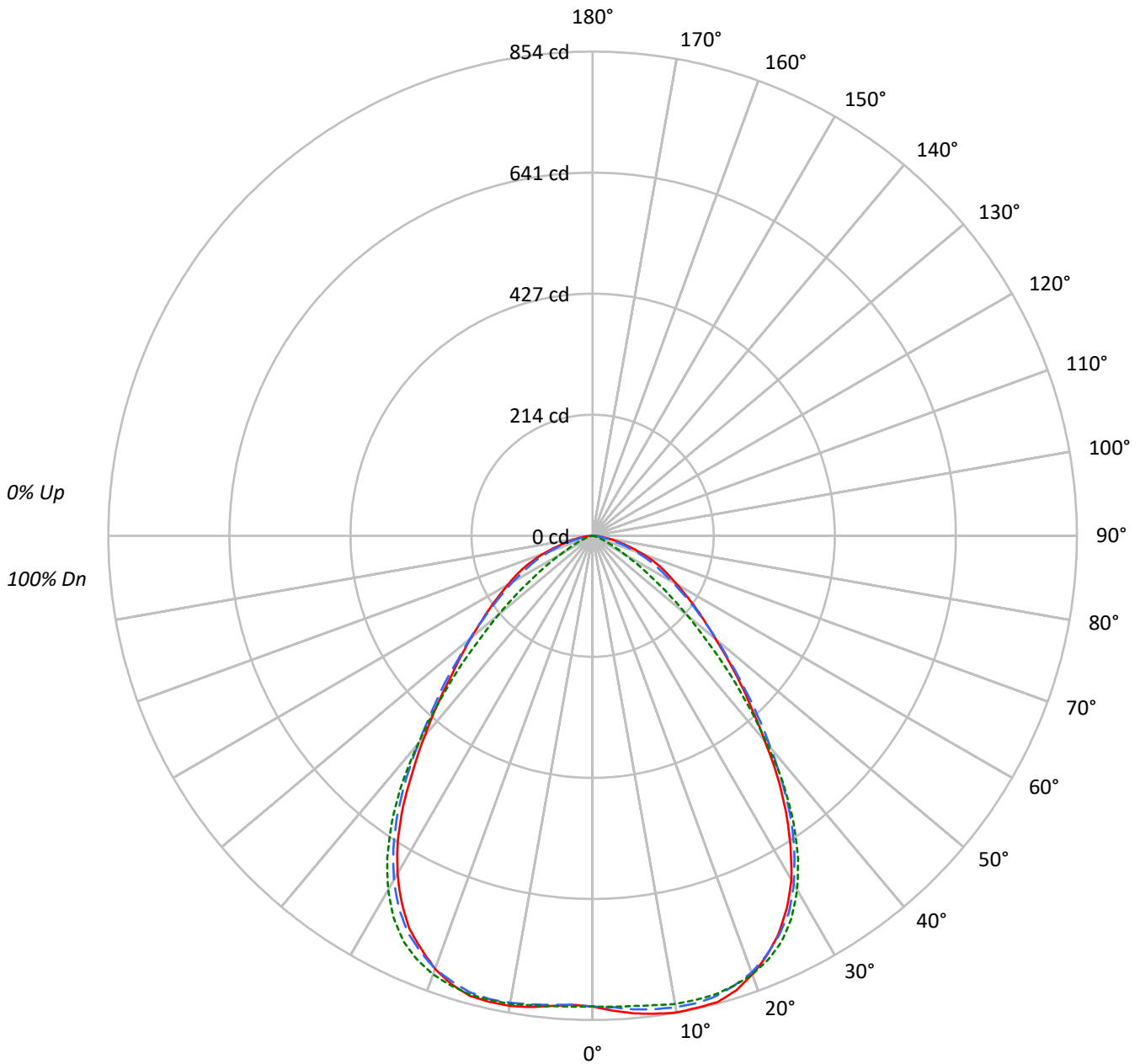
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	54169	54169	54169
5°	55378	54527	54527
10°	56562	55548	55780
15°	57505	56553	56715
20°	57160	57160	56424
25°	55796	56811	55033
30°	52816	54323	51844
35°	47325	49196	46393
40°	40207	40709	39210
45°	34027	31102	32828
50°	28723	21933	28368
55°	25251	14161	24978
60°	22378	8429	22521
65°	20670	5079	20670
70°	17931	2918	17473
75°	14217	1764	13309
80°	10595	1315	10144
85°	9656	898	8758



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.9	4.9
10°-20°	236.6	14.4
20°-30°	355.8	21.6
30°-40°	374.1	22.7
40°-50°	279.5	17.0
50°-60°	174.0	10.6
60°-70°	98.9	6.0
70°-80°	40.8	2.5
80°-90°	8.4	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°	672.3	40.8
0°-40°	1046.4	63.5
0°-60°	1499.9	91.0
0°-90°	1648.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1648.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	830	830	830	830	830	
5°	846	838	833	830	833	81
15°	851	841	837	834	840	239
25°	775	777	789	772	764	355
35°	594	610	618	600	582	369
45°	369	377	337	370	356	286
55°	222	217	124	214	220	200
65°	134	120	33	120	134	132
75°	56	45	7	44	53	61
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°	830.3	830.3	830.3	830.3	830.3	830.3	830.3	830.3	830.3	830.3	830.3
2.5°	838.5	837.3	838.5	836.2	835.0	835.0	836.2	833.8	832.6	833.8	832.6
5°	845.6	843.2	844.4	843.2	840.9	840.9	842.0	838.5	838.5	839.7	838.5
7.5°	850.3	850.3	850.3	847.9	846.7	845.6	847.9	844.4	843.2	843.2	842.0
10°	853.8	852.6	853.8	851.4	849.1	847.9	850.3	847.9	845.6	847.9	844.4
12.5°	852.6	852.6	852.6	851.4	849.1	847.9	850.3	846.7	845.6	846.7	844.4
15°	851.4	847.9	849.1	847.9	844.4	844.4	845.6	842.0	839.7	843.2	840.9
17.5°	840.9	838.5	839.7	837.3	835.0	833.8	835.0	833.8	831.5	833.8	831.5
20°	823.3	823.3	824.4	822.1	819.7	818.6	820.9	818.6	816.2	819.7	819.7
22.5°	802.1	802.1	802.1	800.9	799.8	799.8	799.8	798.6	797.4	799.8	800.9
25°	775.1	773.9	775.1	776.3	775.1	773.9	775.1	775.1	772.8	777.4	777.4
27.5°	741.0	741.0	743.4	742.2	742.2	741.0	743.4	743.4	742.2	745.7	749.3
30°	701.1	698.8	701.1	701.1	702.3	702.3	703.5	703.5	703.5	707.0	709.3
32.5°	649.4	650.6	654.1	653.0	651.8	655.3	655.3	657.7	658.8	661.2	662.4
35°	594.2	595.4	595.4	596.6	598.9	596.6	602.5	601.3	602.5	607.2	609.5
37.5°	535.5	532.0	537.9	535.5	536.7	536.7	539.0	540.2	543.7	549.6	549.6
40°	472.1	473.3	475.6	476.8	478.0	478.0	478.0	481.5	482.7	489.7	488.5
42.5°	416.9	416.9	419.3	420.4	420.4	420.4	420.4	424.0	426.3	428.7	431.0
45°	368.8	365.2	367.6	367.6	369.9	368.8	371.1	373.5	374.6	378.2	377.0
47.5°	323.0	321.8	323.0	324.1	323.0	324.1	325.3	326.5	327.7	327.7	327.7
50°	283.0	283.0	284.2	285.4	285.4	285.4	285.4	286.6	286.6	288.9	286.6
52.5°	250.1	251.3	251.3	250.1	251.3	251.3	252.5	252.5	251.3	251.3	247.8
55°	222.0	220.8	222.0	220.8	222.0	222.0	220.8	220.8	219.6	218.4	217.3
57.5°	194.9	194.9	194.9	194.9	193.8	194.9	193.8	192.6	192.6	190.3	186.7
60°	171.5	171.5	171.5	171.5	171.5	170.3	171.5	170.3	167.9	165.6	160.9
62.5°	151.5	150.3	151.5	150.3	150.3	149.1	149.1	148.0	145.6	143.3	138.6
65°	133.9	135.1	133.9	133.9	132.7	131.5	131.5	130.4	126.8	124.5	119.8
67.5°	115.1	113.9	113.9	113.9	112.7	112.7	112.7	110.4	108.0	104.5	99.8
70°	94.0	94.0	94.0	92.8	92.8	91.6	91.6	90.4	88.1	85.7	79.9
72.5°	74.0	74.0	74.0	71.6	72.8	71.6	71.6	69.3	68.1	64.6	61.1
75°	56.4	56.4	55.2	55.2	54.0	52.8	52.8	51.7	50.5	48.2	44.6
77.5°	41.1	41.1	41.1	39.9	38.8	37.6	37.6	36.4	35.2	34.1	31.7
80°	28.2	28.2	28.2	28.2	27.0	25.8	25.8	24.7	24.7	23.5	21.1
82.5°	18.8	18.8	18.8	18.8	17.6	17.6	17.6	16.4	15.3	15.3	12.9
85°	12.9	12.9	11.7	11.7	11.7	11.7	10.6	10.6	9.4	8.2	8.2
87.5°	7.0	7.0	7.0	7.0	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°	830.3	830.3	830.3	830.3	830.3	830.3	830.3	830.3	830.3	830.3	830.3
2.5°	836.2	836.2	835.0	831.5	832.6	831.5	832.6	831.5	827.9	831.5	827.9
5°	840.9	842.0	839.7	835.0	836.2	835.0	835.0	833.8	830.3	832.6	830.3
7.5°	845.6	844.4	843.2	838.5	839.7	838.5	838.5	836.2	832.6	835.0	831.5
10°	847.9	847.9	845.6	840.9	840.9	839.7	840.9	839.7	835.0	838.5	836.2
12.5°	847.9	846.7	846.7	840.9	842.0	840.9	842.0	839.7	836.2	838.5	837.3
15°	844.4	844.4	843.2	837.3	838.5	838.5	839.7	837.3	833.8	837.3	835.0
17.5°	837.3	837.3	836.2	831.5	833.8	833.8	835.0	832.6	829.1	831.5	831.5
20°	823.3	824.4	824.4	820.9	823.3	823.3	824.4	823.3	822.1	823.3	820.9
22.5°	806.8	809.2	809.2	805.6	808.0	808.0	811.5	810.3	808.0	809.2	808.0
25°	782.1	784.5	786.8	784.5	786.8	786.8	790.4	789.2	786.8	789.2	785.7
27.5°	754.0	755.1	757.5	755.1	758.7	757.5	761.0	759.8	756.3	759.8	758.7
30°	714.0	718.7	722.3	718.7	722.3	722.3	724.6	723.4	722.3	721.1	721.1
32.5°	669.4	674.1	674.1	672.9	675.3	675.3	676.5	674.1	672.9	674.1	675.3
35°	614.2	616.6	618.9	617.7	618.9	620.1	618.9	620.1	616.6	617.7	617.7
37.5°	554.3	556.7	556.7	553.1	555.5	555.5	553.1	553.1	550.8	553.1	548.4
40°	490.9	488.5	489.7	487.4	485.0	485.0	483.9	479.2	476.8	478.0	479.2
42.5°	428.7	428.7	425.1	419.3	413.4	413.4	409.9	407.5	402.8	405.2	404.0
45°	375.8	369.9	365.2	355.8	352.3	350.0	344.1	338.2	335.9	337.1	335.9
47.5°	325.3	320.6	308.9	295.9	292.4	288.9	281.9	274.8	272.5	270.1	270.1
50°	283.0	274.8	261.9	247.8	241.9	236.1	226.7	219.6	214.9	216.1	216.1
52.5°	244.3	234.9	219.6	202.0	194.9	187.9	179.7	171.5	167.9	166.8	166.8
55°	210.2	199.6	184.4	164.4	158.5	150.3	139.8	130.4	125.7	124.5	126.8
57.5°	179.7	170.3	152.7	132.7	125.7	117.4	106.9	98.6	92.8	91.6	92.8
60°	155.0	142.1	126.8	108.0	98.6	91.6	79.9	72.8	66.9	64.6	65.8
62.5°	130.4	118.6	103.3	84.6	77.5	70.5	59.9	51.7	47.0	45.8	47.0
65°	111.6	99.8	85.7	69.3	62.2	55.2	45.8	37.6	34.1	32.9	34.1
67.5°	92.8	82.2	70.5	55.2	49.3	43.5	34.1	28.2	23.5	22.3	23.5
70°	75.2	65.8	54.0	43.5	37.6	32.9	25.8	20.0	16.4	15.3	16.4
72.5°	56.4	49.3	41.1	31.7	28.2	24.7	18.8	14.1	11.7	10.6	11.7
75°	41.1	35.2	29.4	22.3	20.0	17.6	12.9	9.4	8.2	7.0	8.2
77.5°	28.2	24.7	20.0	15.3	12.9	11.7	8.2	7.0	5.9	4.7	4.7
80°	18.8	16.4	12.9	10.6	9.4	8.2	5.9	4.7	3.5	3.5	3.5
82.5°	11.7	9.4	8.2	5.9	4.7	4.7	3.5	2.3	2.3	2.3	2.3
85°	7.0	5.9	4.7	3.5	2.3	2.3	1.2	1.2	1.2	1.2	1.2
87.5°	3.5	2.3	2.3	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°	830.3	830.3	830.3	830.3	830.3	830.3	830.3	830.3	830.3	830.3	830.3
2.5°	830.3	827.9	827.9	829.1	830.3	831.5	829.1	827.9	827.9	831.5	829.1
5°	830.3	829.1	829.1	829.1	831.5	832.6	830.3	829.1	830.3	833.8	832.6
7.5°	833.8	831.5	832.6	832.6	833.8	836.2	833.8	832.6	833.8	837.3	835.0
10°	836.2	833.8	835.0	833.8	837.3	838.5	836.2	835.0	836.2	840.9	839.7
12.5°	837.3	836.2	836.2	835.0	838.5	839.7	837.3	836.2	837.3	840.9	839.7
15°	835.0	833.8	833.8	833.8	836.2	838.5	835.0	833.8	833.8	837.3	836.2
17.5°	830.3	827.9	827.9	827.9	829.1	830.3	826.8	825.6	824.4	827.9	826.8
20°	822.1	819.7	817.4	817.4	818.6	818.6	816.2	812.7	812.7	813.9	811.5
22.5°	806.8	805.6	803.3	802.1	804.5	803.3	798.6	795.1	793.9	795.1	792.7
25°	785.7	783.3	782.1	781.0	782.1	781.0	776.3	771.6	771.6	771.6	768.1
27.5°	756.3	754.0	752.8	752.8	754.0	751.6	746.9	742.2	739.9	739.9	736.3
30°	718.7	718.7	717.6	716.4	715.2	715.2	708.2	703.5	701.1	702.3	699.9
32.5°	672.9	671.8	670.6	667.1	668.2	667.1	661.2	657.7	654.1	651.8	650.6
35°	614.2	614.2	613.0	613.0	613.0	611.9	606.0	602.5	600.1	598.9	595.4
37.5°	549.6	548.4	547.3	547.3	547.3	547.3	543.7	540.2	540.2	539.0	536.7
40°	476.8	478.0	479.2	478.0	481.5	485.0	480.3	478.0	476.8	480.3	475.6
42.5°	406.3	405.2	411.0	412.2	412.2	418.1	419.3	420.4	419.3	421.6	421.6
45°	338.2	337.1	342.9	345.3	351.1	358.2	361.7	367.6	369.9	372.3	369.9
47.5°	273.6	278.3	283.0	288.9	293.6	305.3	312.4	318.3	320.6	324.1	324.1
50°	219.6	224.3	232.5	237.2	243.1	257.2	268.9	277.2	281.9	285.4	284.2
52.5°	169.1	177.3	187.9	192.6	200.8	217.3	230.2	239.6	245.4	249.0	250.1
55°	130.4	137.4	148.0	155.0	163.2	180.9	197.3	207.9	213.7	218.4	220.8
57.5°	96.3	104.5	116.3	122.1	131.5	151.5	165.6	178.5	185.6	191.4	192.6
60°	70.5	78.7	89.3	96.3	105.7	125.7	142.1	153.8	162.1	166.8	169.1
62.5°	50.5	58.7	69.3	76.3	84.6	102.2	118.6	130.4	138.6	144.5	148.0
65°	36.4	44.6	55.2	61.1	68.1	84.6	99.8	111.6	119.8	126.8	129.2
67.5°	27.0	32.9	42.3	48.2	55.2	68.1	81.0	91.6	99.8	105.7	108.0
70°	20.0	24.7	32.9	36.4	41.1	52.8	63.4	72.8	79.9	84.6	86.9
72.5°	14.1	17.6	23.5	27.0	30.5	39.9	48.2	55.2	59.9	64.6	66.9
75°	9.4	11.7	16.4	18.8	21.1	28.2	34.1	39.9	43.5	47.0	48.2
77.5°	5.9	8.2	11.7	12.9	15.3	18.8	23.5	27.0	29.4	31.7	34.1
80°	3.5	4.7	7.0	8.2	9.4	12.9	15.3	17.6	20.0	22.3	23.5
82.5°	2.3	3.5	4.7	4.7	5.9	7.0	9.4	11.7	12.9	14.1	15.3
85°	1.2	1.2	2.3	2.3	3.5	3.5	4.7	5.9	7.0	8.2	9.4
87.5°	1.2	1.2	1.2	1.2	2.3	2.3	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°	830.3	830.3	830.3	830.3	830.3	830.3	830.3	830.3
2.5°	826.8	830.3	826.8	829.1	827.9	827.9	826.8	827.9
5°	830.3	835.0	830.3	833.8	831.5	831.5	831.5	832.6
7.5°	833.8	838.5	835.0	838.5	837.3	836.2	836.2	838.5
10°	837.3	840.9	838.5	842.0	840.9	839.7	839.7	842.0
12.5°	837.3	842.0	839.7	843.2	842.0	840.9	840.9	842.0
15°	833.8	839.7	836.2	839.7	838.5	837.3	837.3	839.7
17.5°	823.3	827.9	825.6	827.9	827.9	826.8	827.9	829.1
20°	809.2	812.7	810.3	812.7	812.7	810.3	811.5	812.7
22.5°	789.2	792.7	790.4	792.7	791.5	790.4	790.4	789.2
25°	764.5	769.2	765.7	768.1	765.7	763.4	763.4	764.5
27.5°	734.0	737.5	732.8	735.2	732.8	730.5	730.5	729.3
30°	694.1	695.2	691.7	694.1	691.7	690.5	688.2	688.2
32.5°	645.9	647.1	643.6	643.6	641.2	641.2	636.5	640.0
35°	589.5	590.7	589.5	588.4	584.8	583.7	582.5	582.5
37.5°	530.8	530.8	527.3	526.1	523.8	521.4	522.6	519.1
40°	470.9	469.8	466.2	467.4	466.2	462.7	461.5	460.4
42.5°	414.6	414.6	411.0	412.2	409.9	408.7	405.2	406.3
45°	365.2	365.2	361.7	361.7	360.5	357.0	358.2	355.8
47.5°	320.6	320.6	319.4	319.4	315.9	314.7	314.7	314.7
50°	281.9	281.9	281.9	281.9	280.7	279.5	278.3	279.5
52.5°	249.0	251.3	250.1	250.1	249.0	247.8	246.6	246.6
55°	219.6	220.8	220.8	222.0	220.8	219.6	220.8	219.6
57.5°	193.8	196.1	196.1	196.1	196.1	196.1	194.9	193.8
60°	171.5	172.6	172.6	173.8	173.8	173.8	172.6	172.6
62.5°	149.1	151.5	152.7	152.7	153.8	152.7	152.7	152.7
65°	131.5	133.9	135.1	133.9	135.1	135.1	133.9	133.9
67.5°	110.4	112.7	112.7	112.7	112.7	113.9	112.7	112.7
70°	89.3	91.6	90.4	91.6	91.6	91.6	91.6	91.6
72.5°	68.1	69.3	70.5	70.5	71.6	70.5	70.5	70.5
75°	49.3	51.7	51.7	51.7	51.7	52.8	52.8	52.8
77.5°	35.2	36.4	36.4	37.6	37.6	37.6	37.6	38.8
80°	24.7	24.7	25.8	25.8	27.0	27.0	27.0	27.0
82.5°	16.4	17.6	17.6	17.6	17.6	17.6	17.6	17.6
85°	9.4	10.6	10.6	10.6	10.6	11.7	11.7	11.7
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)