

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: P136399

Luminaire Tested: **LD6A15D010TE ERW6A15940 6LW111H**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136399
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23375)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A15D010TE ERW6A15940 6LW111H
Description: PORTFOLIO 6 INCH 60 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE
SEMI-SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 4000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1446.0 lumens
Efficiency: N/A
Efficacy: 64.0 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.17 / 1.12
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

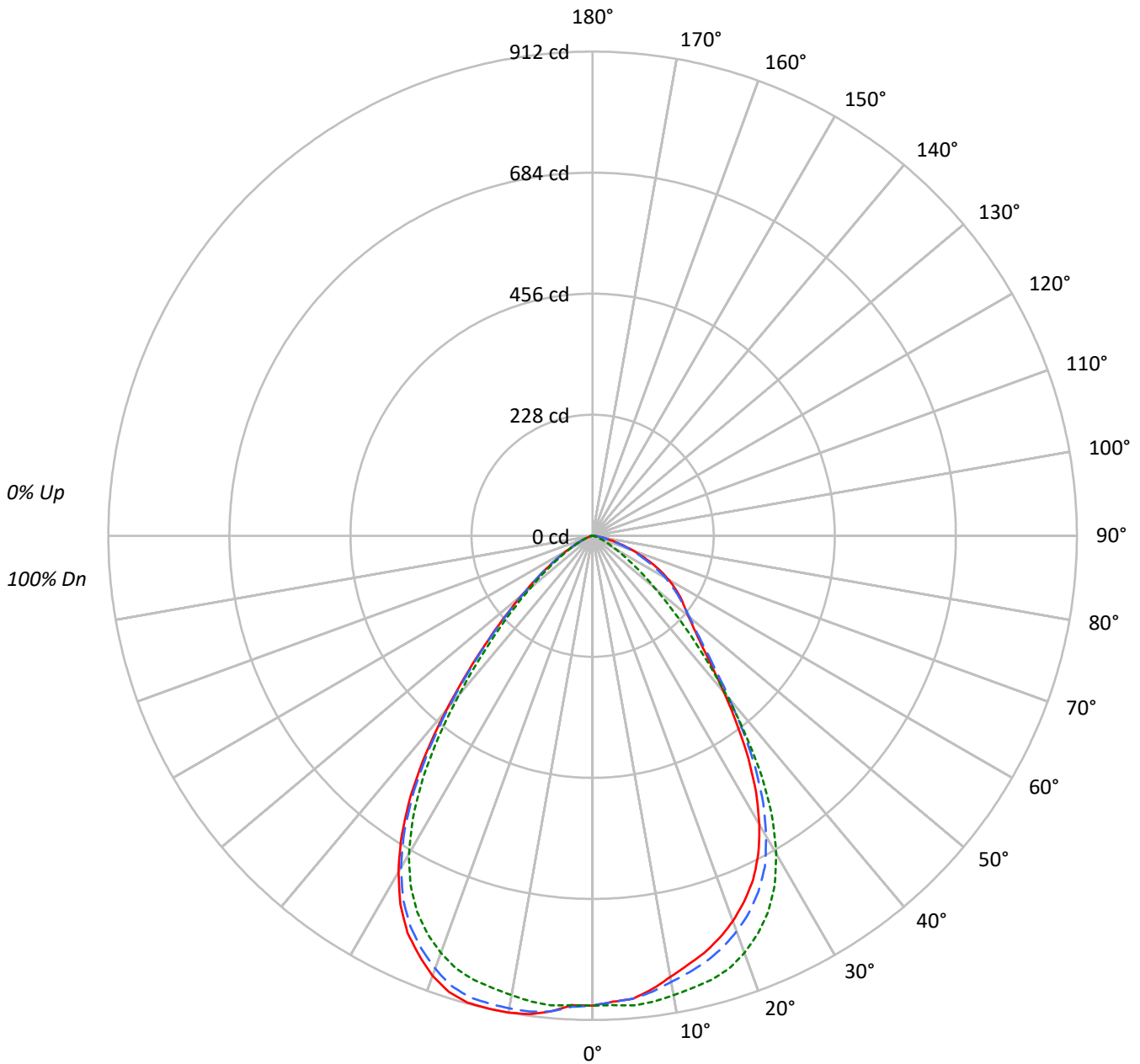
Input Watts (W): 22.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90								
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80								
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72								
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	69	66	64								
5	85	74	67	62	83	73	67	61	71	65	61	70	64	60	68	63	60	58								
6	79	68	61	56	78	68	61	55	66	60	55	64	59	55	63	58	54	52								
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48								
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44								
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40								
10	62	51	44	39	61	50	43	39	49	43	39	48	43	39	48	42	39	37								

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	57731	57731	57731
5°	57330	58162	58888
10°	55893	58198	60411
15°	54945	58485	61484
20°	53626	58028	61221
25°	51484	56278	59366
30°	47309	52093	55076
35°	40674	44338	47492
40°	32687	33359	36468
45°	26627	23121	25603
50°	23821	15448	17549
55°	22908	10100	11545
60°	21529	6420	7242
65°	19096	3921	4168
70°	15432	2423	2423
75°	10789	1613	1613
80°	7176	1165	1165
85°	3593	1198	1198



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.3	5.8
10°-20°	242.9	16.8
20°-30°	353.8	24.5
30°-40°	343.2	23.7
40°-50°	216.9	15.0
50°-60°	120.8	8.4
60°-70°	59.8	4.1
70°-80°	21.1	1.5
80°-90°	3.3	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°	680.9	47.1
0°-40°	1024.1	70.8
0°-60°	1361.7	94.2
0°-90°	1446.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1446.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	885	885	885	885	885	
5°	875	875	888	899	899	82
15°	814	830	866	899	910	229
25°	715	739	782	812	825	326
35°	511	534	557	587	596	317
45°	289	297	251	274	278	228
55°	201	197	89	102	102	179
65°	124	114	25	27	27	122
75°	43	40	6	6	6	48
85°	5	5	2	2	2	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9
2.5°	878.5	870.6	873.8	872.3	873.8	872.3	877.0	872.3	875.4	878.5	872.3
5°	875.4	867.5	869.1	869.1	869.1	869.1	873.8	869.1	872.3	875.4	870.6
7.5°	861.1	854.8	856.3	856.3	856.3	856.3	861.1	858.0	861.1	865.9	861.1
10°	843.7	837.4	840.5	840.5	840.5	840.5	846.9	843.7	846.9	853.2	848.4
12.5°	827.8	823.1	826.2	826.2	826.2	827.8	832.6	831.0	834.1	842.1	837.4
15°	813.5	808.8	812.0	812.0	812.0	813.5	818.3	819.9	823.1	829.5	826.2
17.5°	794.5	789.8	794.5	794.5	793.0	796.1	802.5	802.5	805.6	813.5	812.0
20°	772.4	767.6	772.4	772.4	770.8	773.9	780.3	781.8	785.1	793.0	791.3
22.5°	745.4	743.8	745.4	748.5	746.9	748.5	754.9	756.5	759.6	769.1	767.6
25°	715.2	713.7	716.8	718.4	716.8	718.4	724.7	726.3	729.5	739.0	739.0
27.5°	675.6	674.0	678.8	678.8	678.8	681.9	686.7	689.8	691.5	702.5	701.0
30°	628.0	626.5	629.6	631.2	631.2	631.2	637.5	642.3	643.9	653.4	653.4
32.5°	572.5	572.5	574.1	577.3	575.7	578.8	583.6	586.8	590.0	597.9	597.9
35°	510.7	512.3	513.8	517.0	515.4	517.0	521.7	525.0	526.5	534.5	532.9
37.5°	445.7	447.2	448.8	450.4	450.4	451.9	456.7	458.3	459.9	466.2	463.1
40°	383.8	383.8	385.3	388.6	386.9	390.1	393.3	394.9	394.9	399.6	396.5
42.5°	329.9	331.5	333.0	334.6	334.6	336.2	339.4	341.0	341.0	342.5	337.8
45°	288.6	290.2	290.2	293.4	293.4	295.0	296.6	298.1	296.6	296.6	291.8
47.5°	258.5	260.1	261.7	263.2	263.2	264.9	266.4	266.4	264.9	263.2	257.0
50°	234.7	237.9	237.9	239.5	241.0	242.7	242.7	242.7	239.5	237.9	228.4
52.5°	217.3	218.8	220.4	222.1	222.1	223.6	225.2	223.6	220.4	215.7	206.1
55°	201.4	203.0	204.6	206.1	206.1	206.1	206.1	204.6	201.4	196.6	187.1
57.5°	183.9	185.6	187.1	188.7	188.7	188.7	188.7	187.1	183.9	177.7	166.5
60°	165.0	166.5	168.1	169.6	169.6	169.6	168.1	166.5	163.4	158.6	147.5
62.5°	144.3	145.9	147.5	147.5	147.5	145.9	145.9	144.3	141.2	136.4	125.3
65°	123.7	123.7	125.3	125.3	125.3	125.3	123.7	122.1	118.9	114.2	106.3
67.5°	101.5	103.1	103.1	103.1	103.1	103.1	101.5	101.5	98.4	93.6	87.2
70°	80.9	80.9	82.4	82.4	82.4	82.4	80.9	80.9	77.7	74.5	68.2
72.5°	60.2	60.2	60.2	61.9	61.9	61.9	60.2	60.2	58.7	55.5	50.7
75°	42.8	42.8	42.8	44.4	44.4	44.4	44.4	42.8	41.3	39.6	36.5
77.5°	28.6	30.1	28.6	28.6	28.6	30.1	28.6	28.6	28.6	27.0	23.8
80°	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	17.4	17.4	15.8
82.5°	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	9.5	9.5
85°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9
2.5°	877.0	880.2	883.3	880.2	875.4	884.9	883.3	884.9	883.3	880.2	889.7
5°	875.4	878.5	883.3	880.2	877.0	886.6	884.9	888.1	888.1	884.9	894.5
7.5°	865.9	869.1	877.0	873.8	870.6	880.2	881.8	884.9	886.6	883.3	894.5
10°	854.8	858.0	865.9	864.3	862.7	873.8	875.4	878.5	880.2	878.5	889.7
12.5°	843.7	848.4	856.3	854.8	854.8	865.9	867.5	872.3	875.4	873.8	886.6
15°	832.6	838.9	848.4	846.9	846.9	859.6	861.1	865.9	869.1	869.1	881.8
17.5°	818.3	824.7	834.1	832.6	835.8	845.3	848.4	854.8	858.0	856.3	870.6
20°	797.7	805.6	815.2	813.5	815.2	827.8	831.0	835.8	838.9	838.9	851.6
22.5°	773.9	781.8	791.3	789.8	793.0	802.5	805.6	812.0	815.2	813.5	826.2
25°	745.4	753.3	761.2	761.2	762.8	773.9	777.0	781.8	786.6	785.1	796.1
27.5°	707.3	715.2	723.2	721.6	723.2	734.2	737.4	742.2	746.9	745.4	756.5
30°	658.1	666.1	672.4	670.9	672.4	683.5	685.1	691.5	696.2	696.2	705.8
32.5°	601.0	609.0	612.2	609.0	612.2	620.1	623.2	629.6	632.7	634.4	643.9
35°	536.0	540.8	542.4	539.2	539.2	547.2	550.3	556.7	559.8	561.4	569.4
37.5°	464.6	467.9	464.6	459.9	461.5	464.6	469.4	474.2	478.9	480.5	488.5
40°	394.9	393.3	388.6	380.6	379.0	383.8	386.9	391.7	394.9	398.1	402.8
42.5°	333.0	329.9	320.3	310.8	309.3	309.3	310.8	315.6	318.8	320.3	326.7
45°	283.9	277.5	263.2	252.2	245.8	247.4	247.4	250.6	252.2	255.3	260.1
47.5°	245.8	234.7	217.3	203.0	196.6	195.1	195.1	196.6	198.2	201.4	204.6
50°	215.7	201.4	180.8	165.0	157.0	153.8	153.8	152.2	155.4	157.0	160.2
52.5°	191.9	174.4	150.7	133.2	123.7	120.6	118.9	118.9	118.9	120.6	123.7
55°	169.6	150.7	125.3	107.8	96.7	93.6	90.4	88.8	90.4	92.0	93.6
57.5°	150.7	130.0	104.6	85.7	76.2	71.4	68.2	66.6	66.6	68.2	69.8
60°	131.6	111.0	85.7	68.2	58.7	53.9	50.7	49.2	49.2	50.7	50.7
62.5°	111.0	92.0	69.8	53.9	44.4	39.6	36.5	36.5	34.9	34.9	36.5
65°	93.6	76.2	57.1	42.8	33.3	30.1	27.0	25.4	25.4	23.8	25.4
67.5°	76.2	61.9	46.0	33.3	25.4	22.2	19.1	19.1	17.4	17.4	17.4
70°	60.2	49.2	36.5	25.4	20.6	15.8	14.3	12.7	12.7	12.7	12.7
72.5°	44.4	36.5	27.0	19.1	14.3	12.7	11.1	9.5	7.9	7.9	7.9
75°	31.7	25.4	19.1	14.3	11.1	9.5	7.9	6.4	6.4	6.4	6.4
77.5°	22.2	17.4	14.3	9.5	7.9	6.4	4.8	4.8	4.8	4.8	3.1
80°	14.3	11.1	9.5	6.4	4.8	4.8	3.1	3.1	3.1	3.1	3.1
82.5°	7.9	6.4	4.8	4.8	3.1	3.1	1.6	1.6	1.6	1.6	1.6
85°	3.1	3.1	3.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
87.5°	1.6	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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9	884.9
2.5°	880.2	886.6	886.6	889.7	884.9	888.1	892.8	891.3	886.6	888.1	889.7
5°	886.6	892.8	894.5	899.2	894.5	899.2	905.5	904.0	899.2	902.4	904.0
7.5°	886.6	894.5	897.6	902.4	899.2	904.0	911.9	910.3	905.5	908.8	911.9
10°	883.3	891.3	896.0	900.8	897.6	904.0	910.3	910.3	907.1	910.3	915.0
12.5°	880.2	888.1	892.8	897.6	894.5	902.4	910.3	908.8	907.1	910.3	915.0
15°	875.4	883.3	888.1	892.8	891.3	899.2	907.1	907.1	904.0	908.8	913.4
17.5°	864.3	872.3	878.5	881.8	880.2	888.1	896.0	896.0	892.8	897.6	902.4
20°	845.3	853.2	859.6	862.7	861.1	867.5	875.4	877.0	873.8	878.5	883.3
22.5°	821.5	827.8	834.1	837.4	835.8	842.1	850.0	851.6	848.4	853.2	856.3
25°	793.0	797.7	804.0	807.3	805.6	812.0	819.9	819.9	818.3	821.5	824.7
27.5°	753.3	759.6	764.4	767.6	767.6	772.4	778.7	780.3	778.7	781.8	786.6
30°	704.1	707.3	713.7	715.2	716.8	721.6	728.0	728.0	726.3	729.5	734.2
32.5°	642.3	647.0	651.8	653.4	655.0	659.7	664.5	666.1	664.5	667.6	672.4
35°	569.4	574.1	578.8	580.4	582.0	586.8	591.6	593.1	591.6	594.7	599.5
37.5°	488.5	491.6	496.4	498.0	501.1	504.3	507.5	510.7	509.0	512.3	515.4
40°	406.0	407.5	412.3	413.9	417.1	420.3	423.5	425.0	425.0	426.6	428.2
42.5°	328.2	331.5	334.6	336.2	339.4	341.0	344.2	345.7	345.7	347.3	348.9
45°	261.7	264.9	268.0	269.6	272.8	274.4	275.9	277.5	275.9	275.9	279.2
47.5°	206.1	209.3	212.5	214.1	215.7	217.3	218.8	218.8	218.8	220.4	220.4
50°	161.7	163.4	166.5	166.5	169.6	169.6	171.3	171.3	171.3	171.3	172.9
52.5°	125.3	126.9	130.0	130.0	131.6	133.2	133.2	133.2	133.2	134.8	133.2
55°	95.1	96.7	98.4	98.4	101.5	101.5	101.5	101.5	101.5	101.5	101.5
57.5°	71.4	72.9	74.5	74.5	74.5	76.2	74.5	76.2	76.2	76.2	76.2
60°	52.3	53.9	53.9	53.9	55.5	55.5	55.5	55.5	55.5	55.5	55.5
62.5°	36.5	36.5	38.0	38.0	38.0	39.6	38.0	38.0	39.6	39.6	38.0
65°	25.4	25.4	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0	27.0
67.5°	17.4	17.4	17.4	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
70°	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
72.5°	7.9	7.9	7.9	7.9	9.5	9.5	9.5	9.5	9.5	9.5	9.5
75°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
77.5°	3.1	3.1	4.8	4.8	4.8	3.1	3.1	3.1	4.8	4.8	3.1
80°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0.0	1.6	1.6	1.6
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



TEST NUMBER: P136399

CATALOG NUMBER: LD6A15D010TE ERW6A15940 6LW111H

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	884.9	884.9	884.9	884.9
2.5°	889.7	888.1	889.7	884.9
5°	904.0	902.4	905.5	899.2
7.5°	913.4	911.9	915.0	908.8
10°	915.0	915.0	918.2	911.9
12.5°	915.0	915.0	918.2	911.9
15°	915.0	913.4	916.7	910.3
17.5°	904.0	904.0	907.1	900.8
20°	883.3	883.3	886.6	881.8
22.5°	858.0	858.0	859.6	854.8
25°	826.2	824.7	827.8	824.7
27.5°	786.6	785.1	786.6	783.4
30°	732.7	731.1	734.2	731.1
32.5°	672.4	669.3	672.4	669.3
35°	597.9	594.7	597.9	596.3
37.5°	515.4	512.3	515.4	513.8
40°	428.2	426.6	429.7	428.2
42.5°	348.9	345.7	348.9	347.3
45°	279.2	275.9	279.2	277.5
47.5°	220.4	218.8	222.1	220.4
50°	172.9	171.3	172.9	172.9
52.5°	133.2	131.6	133.2	133.2
55°	101.5	99.9	101.5	101.5
57.5°	76.2	74.5	76.2	76.2
60°	55.5	55.5	55.5	55.5
62.5°	39.6	38.0	39.6	39.6
65°	27.0	27.0	27.0	27.0
67.5°	19.1	19.1	19.1	19.1
70°	12.7	12.7	12.7	12.7
72.5°	9.5	9.5	9.5	7.9
75°	6.4	6.4	6.4	6.4
77.5°	4.8	3.1	4.8	4.8
80°	3.1	3.1	3.1	3.1
82.5°	1.6	1.6	1.6	1.6
85°	1.6	1.6	1.6	1.6
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)