

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: P136361

Luminaire Tested: **LD6A10D010TE ERW6A10830 6LW111H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P136361  
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: LD6A10D010TE ERW6A10830 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 3000K  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1125.0 lumens  
Efficiency: N/A  
Efficacy: 80.4 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

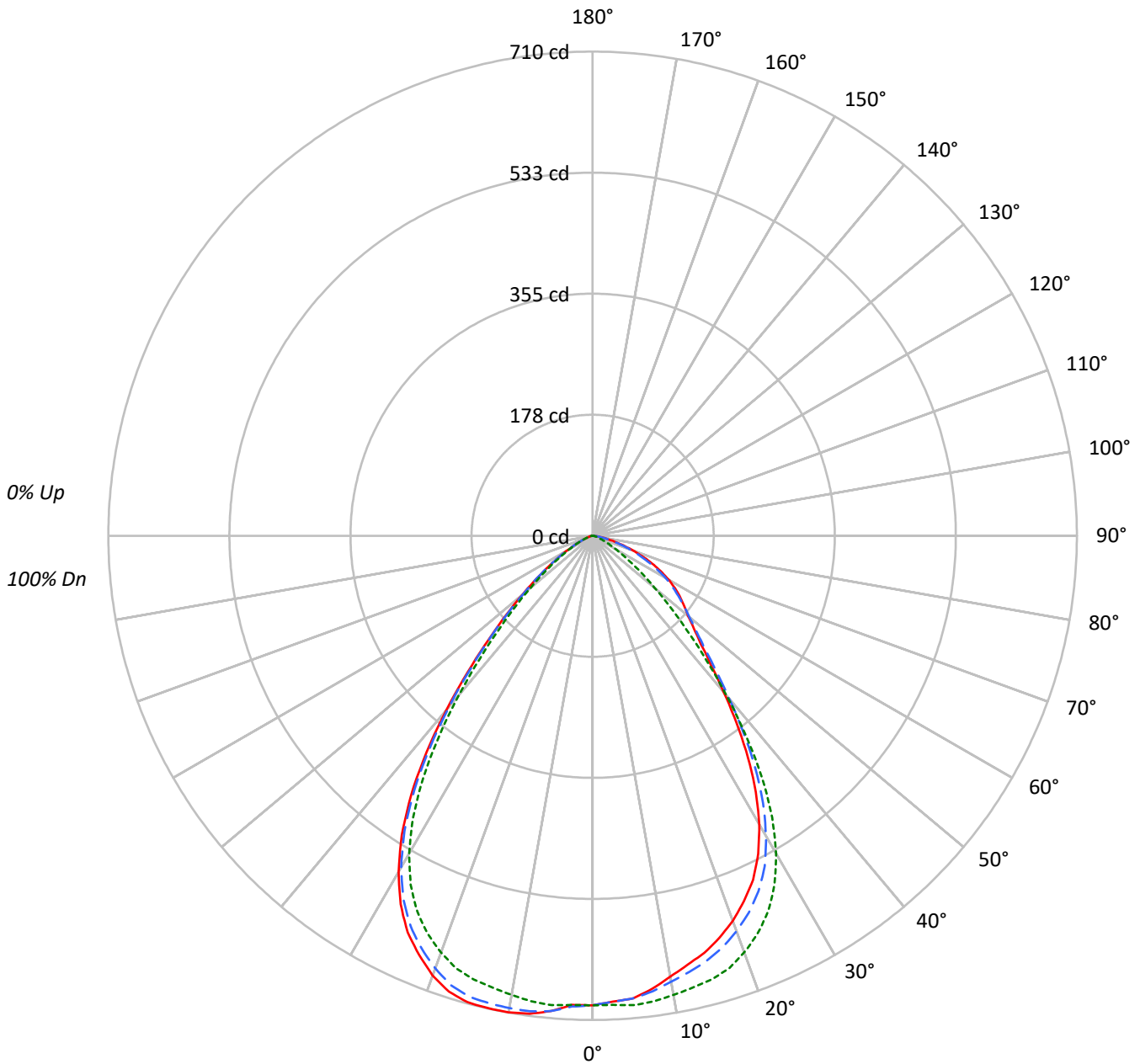
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	44918	44918	44918
5°	44605	45253	45817
10°	43485	45286	47002
15°	42754	45503	47833
20°	41719	45142	47627
25°	40060	43789	46186
30°	36808	40529	42850
35°	31643	34494	36947
40°	25430	25958	28369
45°	20723	17982	19920
50°	18533	12027	13651
55°	17824	7860	8986
60°	16741	4984	5637
65°	14851	3041	3242
70°	11998	1888	1888
75°	8394	1235	1235
80°	5560	939	939
85°	2770	898	898



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.6	5.8
10°-20°	189.0	16.8
20°-30°	275.2	24.5
30°-40°	267.0	23.7
40°-50°	168.7	15.0
50°-60°	94.0	8.4
60°-70°	46.5	4.1
70°-80°	16.4	1.5
80°-90°	2.6	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°	529.8	47.1
0°-40°	796.8	70.8
0°-60°	1059.5	94.2
0°-90°	1125.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1125.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	688	688	688	688	688	
5°	681	681	691	700	700	64
15°	633	645	674	700	708	178
25°	556	575	608	632	642	254
35°	397	416	433	456	464	246
45°	225	231	195	214	216	177
55°	157	153	69	79	79	140
65°	96	89	20	21	21	95
75°	33	31	5	5	5	37
85°	4	4	1	1	1	6
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°	688.5	688.5	688.5	688.5	688.5	688.5	688.5	688.5	688.5	688.5	688.5
2.5°	683.6	677.4	679.9	678.6	679.9	678.6	682.3	678.6	681.1	683.6	678.6
5°	681.1	674.9	676.2	676.2	676.2	676.2	679.9	676.2	678.6	681.1	677.4
7.5°	670.0	665.1	666.3	666.3	666.3	666.3	670.0	667.5	670.0	673.7	670.0
10°	656.4	651.5	653.9	653.9	653.9	653.9	658.9	656.4	658.9	663.8	660.1
12.5°	644.1	640.4	642.8	642.8	642.8	644.1	647.8	646.5	649.0	655.2	651.5
15°	633.0	629.3	631.7	631.7	631.7	633.0	636.7	637.9	640.4	645.3	642.8
17.5°	618.2	614.5	618.2	618.2	616.9	619.4	624.3	624.3	626.8	633.0	631.7
20°	600.9	597.2	600.9	600.9	599.7	602.1	607.1	608.3	610.8	616.9	615.7
22.5°	579.9	578.7	579.9	582.4	581.1	582.4	587.3	588.6	591.0	598.4	597.2
25°	556.5	555.2	557.7	558.9	557.7	558.9	563.9	565.1	567.6	575.0	575.0
27.5°	525.6	524.4	528.1	528.1	528.1	530.6	534.3	536.7	538.0	546.6	545.4
30°	488.6	487.4	489.8	491.1	491.1	491.1	496.0	499.7	500.9	508.4	508.4
32.5°	445.4	445.4	446.7	449.1	447.9	450.4	454.1	456.5	459.0	465.2	465.2
35°	397.3	398.5	399.8	402.2	401.0	402.2	405.9	408.4	409.6	415.8	414.6
37.5°	346.7	347.9	349.2	350.4	350.4	351.6	355.4	356.6	357.8	362.8	360.3
40°	298.6	298.6	299.8	302.3	301.1	303.5	306.0	307.2	307.2	310.9	308.5
42.5°	256.6	257.9	259.1	260.3	260.3	261.6	264.0	265.3	265.3	266.5	262.8
45°	224.6	225.8	225.8	228.3	228.3	229.5	230.7	232.0	230.7	230.7	227.0
47.5°	201.1	202.4	203.6	204.8	204.8	206.1	207.3	207.3	206.1	204.8	199.9
50°	182.6	185.1	185.1	186.3	187.5	188.8	188.8	188.8	186.3	185.1	177.7
52.5°	169.0	170.3	171.5	172.7	172.7	174.0	175.2	174.0	171.5	167.8	160.4
55°	156.7	157.9	159.2	160.4	160.4	160.4	160.4	159.2	156.7	153.0	145.6
57.5°	143.1	144.4	145.6	146.8	146.8	146.8	146.8	145.6	143.1	138.2	129.6
60°	128.3	129.6	130.8	132.0	132.0	132.0	130.8	129.6	127.1	123.4	114.7
62.5°	112.3	113.5	114.7	114.7	114.7	113.5	113.5	112.3	109.8	106.1	97.5
65°	96.2	96.2	97.5	97.5	97.5	97.5	96.2	95.0	92.5	88.8	82.7
67.5°	79.0	80.2	80.2	80.2	80.2	80.2	79.0	79.0	76.5	72.8	67.9
70°	62.9	62.9	64.2	64.2	64.2	64.2	62.9	62.9	60.5	58.0	53.1
72.5°	46.9	46.9	46.9	48.1	48.1	48.1	46.9	46.9	45.7	43.2	39.5
75°	33.3	33.3	33.3	34.5	34.5	34.5	34.5	33.3	32.1	30.8	28.4
77.5°	22.2	23.4	22.2	22.2	22.2	23.4	22.2	22.2	22.2	21.0	18.5
80°	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	13.6	13.6	12.3
82.5°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	7.4	7.4
85°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
87.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	688.5	688.5	688.5	688.5	688.5	688.5	688.5	688.5	688.5	688.5	688.5
2.5°	682.3	684.8	687.3	684.8	681.1	688.5	687.3	688.5	687.3	684.8	692.2
5°	681.1	683.6	687.3	684.8	682.3	689.7	688.5	691.0	691.0	688.5	695.9
7.5°	673.7	676.2	682.3	679.9	677.4	684.8	686.0	688.5	689.7	687.3	695.9
10°	665.1	667.5	673.7	672.5	671.2	679.9	681.1	683.6	684.8	683.6	692.2
12.5°	656.4	660.1	666.3	665.1	665.1	673.7	674.9	678.6	681.1	679.9	689.7
15°	647.8	652.7	660.1	658.9	658.9	668.8	670.0	673.7	676.2	676.2	686.0
17.5°	636.7	641.6	649.0	647.8	650.2	657.6	660.1	665.1	667.5	666.3	677.4
20°	620.6	626.8	634.2	633.0	634.2	644.1	646.5	650.2	652.7	652.7	662.6
22.5°	602.1	608.3	615.7	614.5	616.9	624.3	626.8	631.7	634.2	633.0	642.8
25°	579.9	586.1	592.3	592.3	593.5	602.1	604.6	608.3	612.0	610.8	619.4
27.5°	550.3	556.5	562.6	561.4	562.6	571.3	573.7	577.4	581.1	579.9	588.6
30°	512.1	518.2	523.2	521.9	523.2	531.8	533.0	538.0	541.7	541.7	549.1
32.5°	467.6	473.8	476.3	473.8	476.3	482.4	484.9	489.8	492.3	493.5	500.9
35°	417.0	420.7	422.0	419.5	419.5	425.7	428.1	433.1	435.6	436.8	443.0
37.5°	361.5	364.0	361.5	357.8	359.1	361.5	365.2	368.9	372.6	373.9	380.0
40°	307.2	306.0	302.3	296.1	294.9	298.6	301.1	304.8	307.2	309.7	313.4
42.5°	259.1	256.6	249.2	241.8	240.6	240.6	241.8	245.5	248.0	249.2	254.2
45°	220.9	215.9	204.8	196.2	191.2	192.5	192.5	194.9	196.2	198.7	202.4
47.5°	191.2	182.6	169.0	157.9	153.0	151.8	151.8	153.0	154.2	156.7	159.2
50°	167.8	156.7	140.7	128.3	122.2	119.7	119.7	118.5	120.9	122.2	124.6
52.5°	149.3	135.7	117.2	103.6	96.2	93.8	92.5	92.5	92.5	93.8	96.2
55°	132.0	117.2	97.5	83.9	75.3	72.8	70.3	69.1	70.3	71.6	72.8
57.5°	117.2	101.2	81.4	66.6	59.2	55.5	53.1	51.8	51.8	53.1	54.3
60°	102.4	86.4	66.6	53.1	45.7	42.0	39.5	38.2	38.2	39.5	39.5
62.5°	86.4	71.6	54.3	42.0	34.5	30.8	28.4	28.4	27.1	27.1	28.4
65°	72.8	59.2	44.4	33.3	25.9	23.4	21.0	19.7	19.7	18.5	19.7
67.5°	59.2	48.1	35.8	25.9	19.7	17.3	14.8	14.8	13.6	13.6	13.6
70°	46.9	38.2	28.4	19.7	16.0	12.3	11.1	9.9	9.9	9.9	9.9
72.5°	34.5	28.4	21.0	14.8	11.1	9.9	8.6	7.4	6.2	6.2	6.2
75°	24.7	19.7	14.8	11.1	8.6	7.4	6.2	4.9	4.9	4.9	4.9
77.5°	17.3	13.6	11.1	7.4	6.2	4.9	3.7	3.7	3.7	3.7	2.5
80°	11.1	8.6	7.4	4.9	3.7	3.7	2.5	2.5	2.5	2.5	2.5
82.5°	6.2	4.9	3.7	3.7	2.5	2.5	1.2	1.2	1.2	1.2	1.2
85°	2.5	2.5	2.5	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
87.5°	1.2	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°	688.5	688.5	688.5	688.5	688.5	688.5	688.5	688.5	688.5	688.5	688.5
2.5°	684.8	689.7	689.7	692.2	688.5	691.0	694.7	693.4	689.7	691.0	692.2
5°	689.7	694.7	695.9	699.6	695.9	699.6	704.5	703.3	699.6	702.1	703.3
7.5°	689.7	695.9	698.4	702.1	699.6	703.3	709.5	708.2	704.5	707.0	709.5
10°	687.3	693.4	697.1	700.8	698.4	703.3	708.2	708.2	705.8	708.2	711.9
12.5°	684.8	691.0	694.7	698.4	695.9	702.1	708.2	707.0	705.8	708.2	711.9
15°	681.1	687.3	691.0	694.7	693.4	699.6	705.8	705.8	703.3	707.0	710.7
17.5°	672.5	678.6	683.6	686.0	684.8	691.0	697.1	697.1	694.7	698.4	702.1
20°	657.6	663.8	668.8	671.2	670.0	674.9	681.1	682.3	679.9	683.6	687.3
22.5°	639.1	644.1	649.0	651.5	650.2	655.2	661.3	662.6	660.1	663.8	666.3
25°	616.9	620.6	625.6	628.0	626.8	631.7	637.9	637.9	636.7	639.1	641.6
27.5°	586.1	591.0	594.7	597.2	597.2	600.9	605.8	607.1	605.8	608.3	612.0
30°	547.8	550.3	555.2	556.5	557.7	561.4	566.3	566.3	565.1	567.6	571.3
32.5°	499.7	503.4	507.1	508.4	509.6	513.3	517.0	518.2	517.0	519.5	523.2
35°	443.0	446.7	450.4	451.6	452.8	456.5	460.2	461.5	460.2	462.7	466.4
37.5°	380.0	382.5	386.2	387.4	389.9	392.4	394.8	397.3	396.1	398.5	401.0
40°	315.9	317.1	320.8	322.0	324.5	327.0	329.4	330.7	330.7	331.9	333.1
42.5°	255.4	257.9	260.3	261.6	264.0	265.3	267.7	269.0	269.0	270.2	271.4
45°	203.6	206.1	208.5	209.8	212.2	213.5	214.7	215.9	214.7	214.7	217.2
47.5°	160.4	162.9	165.3	166.6	167.8	169.0	170.3	170.3	170.3	171.5	171.5
50°	125.9	127.1	129.6	129.6	132.0	132.0	133.3	133.3	133.3	133.3	134.5
52.5°	97.5	98.7	101.2	101.2	102.4	103.6	103.6	103.6	103.6	104.9	103.6
55°	74.0	75.3	76.5	76.5	79.0	79.0	79.0	79.0	79.0	79.0	79.0
57.5°	55.5	56.8	58.0	58.0	58.0	59.2	58.0	59.2	59.2	59.2	59.2
60°	40.7	42.0	42.0	42.0	43.2	43.2	43.2	43.2	43.2	43.2	43.2
62.5°	28.4	28.4	29.6	29.6	29.6	30.8	29.6	29.6	30.8	30.8	29.6
65°	19.7	19.7	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
67.5°	13.6	13.6	13.6	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
70°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
72.5°	6.2	6.2	6.2	6.2	7.4	7.4	7.4	7.4	7.4	7.4	7.4
75°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
77.5°	2.5	2.5	3.7	3.7	3.7	2.5	2.5	2.5	3.7	3.7	2.5
80°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
82.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
85°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.0	1.2	1.2	1.2
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: P136361

CATALOG NUMBER: LD6A10D010TE ERW6A10830 6LW111H

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	688.5	688.5	688.5	688.5
2.5°	692.2	691.0	692.2	688.5
5°	703.3	702.1	704.5	699.6
7.5°	710.7	709.5	711.9	707.0
10°	711.9	711.9	714.4	709.5
12.5°	711.9	711.9	714.4	709.5
15°	711.9	710.7	713.2	708.2
17.5°	703.3	703.3	705.8	700.8
20°	687.3	687.3	689.7	686.0
22.5°	667.5	667.5	668.8	665.1
25°	642.8	641.6	644.1	641.6
27.5°	612.0	610.8	612.0	609.5
30°	570.0	568.8	571.3	568.8
32.5°	523.2	520.7	523.2	520.7
35°	465.2	462.7	465.2	463.9
37.5°	401.0	398.5	401.0	399.8
40°	333.1	331.9	334.4	333.1
42.5°	271.4	269.0	271.4	270.2
45°	217.2	214.7	217.2	215.9
47.5°	171.5	170.3	172.7	171.5
50°	134.5	133.3	134.5	134.5
52.5°	103.6	102.4	103.6	103.6
55°	79.0	77.7	79.0	79.0
57.5°	59.2	58.0	59.2	59.2
60°	43.2	43.2	43.2	43.2
62.5°	30.8	29.6	30.8	30.8
65°	21.0	21.0	21.0	21.0
67.5°	14.8	14.8	14.8	14.8
70°	9.9	9.9	9.9	9.9
72.5°	7.4	7.4	7.4	6.2
75°	4.9	4.9	4.9	4.9
77.5°	3.7	2.5	3.7	3.7
80°	2.5	2.5	2.5	2.5
82.5°	1.2	1.2	1.2	1.2
85°	1.2	1.2	1.2	1.2
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)