

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: P136397

Luminaire Tested: **LD6A15D010TE ERW6A15930 6LW111H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P136397  
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 ERW6A15930 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**

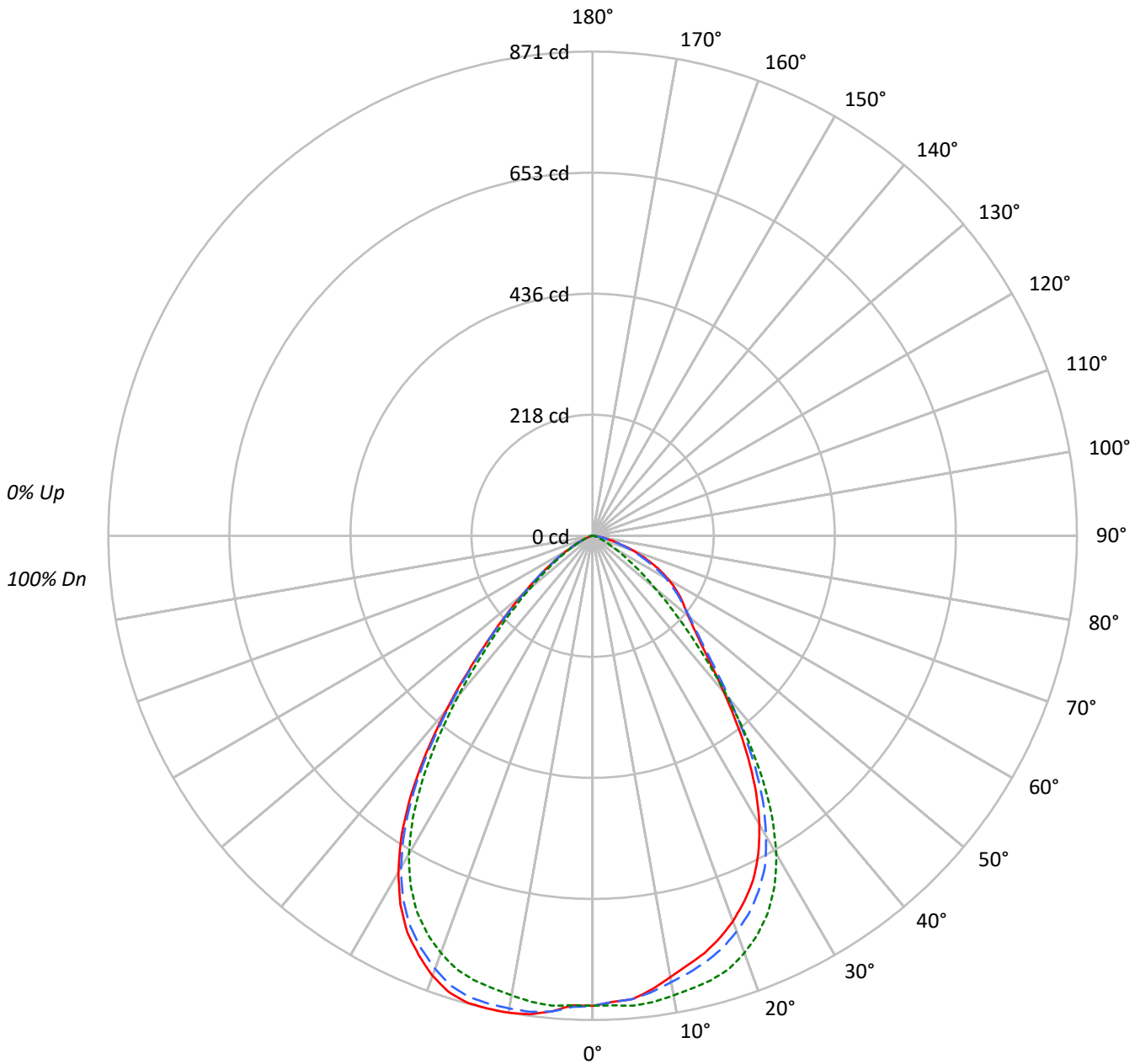
Lumens per Lamp: N/A  
Luminaire Lumens: 1381.5 lumens  
Efficiency: N/A  
Efficacy: 61.1 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.17 / 1.12  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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				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				100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72				72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	69	66	64				64
5	85	74	67	62	83	73	67	61	71	65	61	70	64	60	68	63	60	58				58
6	79	68	61	56	78	68	61	55	66	60	55	64	59	55	63	58	54	52				52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				44
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40				40
10	62	51	44	39	61	50	43	39	49	43	39	48	43	39	48	42	39	37				37

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	55161	55161	55161
5°	54776	55568	56262
10°	53402	55608	57721
15°	52500	55871	58741
20°	51231	55438	58486
25°	49195	53773	56717
30°	45200	49765	52620
35°	38858	42355	45373
40°	31230	31877	34841
45°	25437	22088	24468
50°	22766	14758	16757
55°	21884	9645	11033
60°	20564	6133	6916
65°	18247	3736	3983
70°	14745	2327	2327
75°	10310	1538	1538
80°	6800	1127	1127
85°	3368	1123	1123



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.5	5.8
10°-20°	232.1	16.8
20°-30°	338.0	24.5
30°-40°	327.9	23.7
40°-50°	207.2	15.0
50°-60°	115.4	8.4
60°-70°	57.2	4.1
70°-80°	20.1	1.5
80°-90°	3.2	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°	650.6	47.1
0°-40°	978.4	70.8
0°-60°	1301.0	94.2
0°-90°	1381.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1381.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	846	846	846	846	846	
5°	836	836	848	859	859	79
15°	777	792	827	859	870	219
25°	683	706	747	776	788	312
35°	488	511	532	561	570	302
45°	276	283	239	262	265	218
55°	192	188	85	97	97	171
65°	118	109	24	26	26	116
75°	41	38	6	6	6	46
85°	4	4	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°	845.5	845.5	845.5	845.5	845.5	845.5	845.5	845.5	845.5	845.5	845.5
2.5°	839.4	831.8	834.9	833.3	834.9	833.3	837.9	833.3	836.4	839.4	833.3
5°	836.4	828.8	830.3	830.3	830.3	830.3	834.9	830.3	833.3	836.4	831.8
7.5°	822.7	816.7	818.2	818.2	818.2	818.2	822.7	819.7	822.7	827.2	822.7
10°	806.1	800.0	803.0	803.0	803.0	803.0	809.1	806.1	809.1	815.2	810.7
12.5°	791.0	786.3	789.4	789.4	789.4	791.0	795.5	794.0	796.9	804.6	800.0
15°	777.3	772.7	775.8	775.8	775.8	777.3	781.8	783.3	786.3	792.4	789.4
17.5°	759.1	754.6	759.1	759.1	757.6	760.7	766.6	766.6	769.7	777.3	775.8
20°	737.9	733.4	737.9	737.9	736.3	739.4	745.5	747.0	750.0	757.6	756.0
22.5°	712.1	710.6	712.1	715.2	713.7	715.2	721.2	722.7	725.7	734.9	733.4
25°	683.4	681.8	684.9	686.4	684.9	686.4	692.4	694.0	697.0	706.0	706.0
27.5°	645.4	644.0	648.5	648.5	648.5	651.5	656.0	659.1	660.6	671.2	669.8
30°	600.0	598.5	601.5	603.1	603.1	603.1	609.1	613.7	615.1	624.3	624.3
32.5°	547.0	547.0	548.5	551.5	550.0	553.1	557.6	560.6	563.7	571.2	571.2
35°	487.9	489.4	490.9	493.9	492.5	493.9	498.5	501.5	503.1	510.6	509.1
37.5°	425.8	427.3	428.8	430.3	430.3	431.9	436.4	437.8	439.4	445.5	442.4
40°	366.7	366.7	368.2	371.3	369.7	372.7	375.8	377.2	377.2	381.8	378.8
42.5°	315.2	316.6	318.2	319.7	319.7	321.2	324.3	325.8	325.8	327.3	322.7
45°	275.7	277.3	277.3	280.4	280.4	281.8	283.3	284.9	283.3	283.3	278.8
47.5°	247.0	248.5	250.0	251.5	251.5	253.0	254.6	254.6	253.0	251.5	245.4
50°	224.3	227.3	227.3	228.8	230.3	231.8	231.8	231.8	228.8	227.3	218.2
52.5°	207.6	209.1	210.6	212.1	212.1	213.7	215.1	213.7	210.6	206.0	197.0
55°	192.4	194.0	195.4	197.0	197.0	197.0	197.0	195.4	192.4	187.9	178.8
57.5°	175.7	177.3	178.8	180.3	180.3	180.3	180.3	178.8	175.7	169.7	159.1
60°	157.6	159.1	160.6	162.1	162.1	162.1	160.6	159.1	156.1	151.5	140.9
62.5°	137.9	139.4	140.9	140.9	140.9	139.4	139.4	137.9	134.8	130.3	119.7
65°	118.2	118.2	119.7	119.7	119.7	119.7	118.2	116.7	113.7	109.1	101.5
67.5°	97.0	98.5	98.5	98.5	98.5	98.5	97.0	97.0	93.9	89.4	83.4
70°	77.3	77.3	78.7	78.7	78.7	78.7	77.3	77.3	74.2	71.2	65.1
72.5°	57.6	57.6	57.6	59.1	59.1	59.1	57.6	57.6	56.1	53.0	48.4
75°	40.9	40.9	40.9	42.5	42.5	42.5	42.5	40.9	39.4	37.9	34.8
77.5°	27.3	28.8	27.3	27.3	27.3	28.8	27.3	27.3	27.3	25.8	22.7
80°	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1	16.7	16.7	15.2
82.5°	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	9.1	9.1
85°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
87.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	845.5	845.5	845.5	845.5	845.5	845.5	845.5	845.5	845.5	845.5	845.5
2.5°	837.9	841.0	843.9	841.0	836.4	845.5	843.9	845.5	843.9	841.0	850.0
5°	836.4	839.4	843.9	841.0	837.9	847.0	845.5	848.5	848.5	845.5	854.6
7.5°	827.2	830.3	837.9	834.9	831.8	841.0	842.4	845.5	847.0	843.9	854.6
10°	816.7	819.7	827.2	825.8	824.3	834.9	836.4	839.4	841.0	839.4	850.0
12.5°	806.1	810.7	818.2	816.7	816.7	827.2	828.8	833.3	836.4	834.9	847.0
15°	795.5	801.5	810.7	809.1	809.1	821.3	822.7	827.2	830.3	830.3	842.4
17.5°	781.8	787.9	796.9	795.5	798.5	807.6	810.7	816.7	819.7	818.2	831.8
20°	762.1	769.7	778.8	777.3	778.8	791.0	794.0	798.5	801.5	801.5	813.6
22.5°	739.4	747.0	756.0	754.6	757.6	766.6	769.7	775.8	778.8	777.3	789.4
25°	712.1	719.7	727.3	727.3	728.8	739.4	742.4	747.0	751.5	750.0	760.7
27.5°	675.7	683.4	690.9	689.4	690.9	701.5	704.6	709.1	713.7	712.1	722.7
30°	628.8	636.4	642.4	640.9	642.4	653.1	654.6	660.6	665.1	665.1	674.3
32.5°	574.2	581.8	584.8	581.8	584.8	592.5	595.4	601.5	604.5	606.1	615.1
35°	512.2	516.7	518.2	515.1	515.1	522.8	525.8	531.8	534.8	536.4	543.9
37.5°	443.9	447.0	443.9	439.4	440.9	443.9	448.5	453.0	457.6	459.1	466.7
40°	377.2	375.8	371.3	363.6	362.1	366.7	369.7	374.3	377.2	380.3	384.9
42.5°	318.2	315.2	306.0	296.9	295.5	295.5	296.9	301.5	304.6	306.0	312.1
45°	271.2	265.2	251.5	240.9	234.9	236.3	236.3	239.4	240.9	244.0	248.5
47.5°	234.9	224.3	207.6	194.0	187.9	186.4	186.4	187.9	189.4	192.4	195.4
50°	206.0	192.4	172.7	157.6	150.0	147.0	147.0	145.4	148.5	150.0	153.1
52.5°	183.4	166.7	144.0	127.3	118.2	115.1	113.7	113.7	113.7	115.1	118.2
55°	162.1	144.0	119.7	103.1	92.5	89.4	86.4	84.8	86.4	87.9	89.4
57.5°	144.0	124.2	100.0	81.8	72.8	68.2	65.1	63.6	63.6	65.1	66.7
60°	125.7	106.1	81.8	65.1	56.1	51.5	48.4	47.0	47.0	48.4	48.4
62.5°	106.1	87.9	66.7	51.5	42.5	37.9	34.8	34.8	33.3	33.3	34.8
65°	89.4	72.8	54.5	40.9	31.8	28.8	25.8	24.2	24.2	22.7	24.2
67.5°	72.8	59.1	43.9	31.8	24.2	21.2	18.1	18.1	16.7	16.7	16.7
70°	57.6	47.0	34.8	24.2	19.7	15.2	13.6	12.2	12.2	12.2	12.2
72.5°	42.5	34.8	25.8	18.1	13.6	12.2	10.6	9.1	7.6	7.6	7.6
75°	30.3	24.2	18.1	13.6	10.6	9.1	7.6	6.1	6.1	6.1	6.1
77.5°	21.2	16.7	13.6	9.1	7.6	6.1	4.5	4.5	4.5	4.5	3.0
80°	13.6	10.6	9.1	6.1	4.5	4.5	3.0	3.0	3.0	3.0	3.0
82.5°	7.6	6.1	4.5	4.5	3.0	3.0	1.5	1.5	1.5	1.5	1.5
85°	3.0	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
87.5°	1.5	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°	845.5	845.5	845.5	845.5	845.5	845.5	845.5	845.5	845.5	845.5	845.5
2.5°	841.0	847.0	847.0	850.0	845.5	848.5	853.0	851.6	847.0	848.5	850.0
5°	847.0	853.0	854.6	859.1	854.6	859.1	865.2	863.6	859.1	862.1	863.6
7.5°	847.0	854.6	857.6	862.1	859.1	863.6	871.3	869.7	865.2	868.2	871.3
10°	843.9	851.6	856.1	860.6	857.6	863.6	869.7	869.7	866.7	869.7	874.2
12.5°	841.0	848.5	853.0	857.6	854.6	862.1	869.7	868.2	866.7	869.7	874.2
15°	836.4	843.9	848.5	853.0	851.6	859.1	866.7	866.7	863.6	868.2	872.7
17.5°	825.8	833.3	839.4	842.4	841.0	848.5	856.1	856.1	853.0	857.6	862.1
20°	807.6	815.2	821.3	824.3	822.7	828.8	836.4	837.9	834.9	839.4	843.9
22.5°	784.9	791.0	796.9	800.0	798.5	804.6	812.1	813.6	810.7	815.2	818.2
25°	757.6	762.1	768.2	771.2	769.7	775.8	783.3	783.3	781.8	784.9	787.9
27.5°	719.7	725.7	730.4	733.4	733.4	737.9	744.0	745.5	744.0	747.0	751.5
30°	672.7	675.7	681.8	683.4	684.9	689.4	695.4	695.4	694.0	697.0	701.5
32.5°	613.7	618.2	622.8	624.3	625.7	630.3	634.8	636.4	634.8	637.9	642.4
35°	543.9	548.5	553.1	554.5	556.1	560.6	565.1	566.7	565.1	568.2	572.8
37.5°	466.7	469.7	474.2	475.8	478.8	481.9	484.8	487.9	486.4	489.4	492.5
40°	387.9	389.4	393.9	395.5	398.5	401.6	404.6	406.1	406.1	407.5	409.1
42.5°	313.6	316.6	319.7	321.2	324.3	325.8	328.8	330.3	330.3	331.8	333.3
45°	250.0	253.0	256.0	257.6	260.6	262.1	263.7	265.2	263.7	263.7	266.6
47.5°	197.0	200.0	203.0	204.6	206.0	207.6	209.1	209.1	209.1	210.6	210.6
50°	154.5	156.1	159.1	159.1	162.1	162.1	163.7	163.7	163.7	163.7	165.1
52.5°	119.7	121.2	124.2	124.2	125.7	127.3	127.3	127.3	127.3	128.8	127.3
55°	90.9	92.5	93.9	93.9	97.0	97.0	97.0	97.0	97.0	97.0	97.0
57.5°	68.2	69.7	71.2	71.2	71.2	72.8	71.2	72.8	72.8	72.8	72.8
60°	50.0	51.5	51.5	51.5	53.0	53.0	53.0	53.0	53.0	53.0	53.0
62.5°	34.8	34.8	36.4	36.4	36.4	37.9	36.4	36.4	37.9	37.9	36.4
65°	24.2	24.2	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8
67.5°	16.7	16.7	16.7	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1
70°	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
72.5°	7.6	7.6	7.6	7.6	9.1	9.1	9.1	9.1	9.1	9.1	9.1
75°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
77.5°	3.0	3.0	4.5	4.5	4.5	3.0	3.0	3.0	4.5	4.5	3.0
80°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
82.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
85°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.0	1.5	1.5	1.5
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





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**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	845.5	845.5	845.5	845.5
2.5°	850.0	848.5	850.0	845.5
5°	863.6	862.1	865.2	859.1
7.5°	872.7	871.3	874.2	868.2
10°	874.2	874.2	877.3	871.3
12.5°	874.2	874.2	877.3	871.3
15°	874.2	872.7	875.8	869.7
17.5°	863.6	863.6	866.7	860.6
20°	843.9	843.9	847.0	842.4
22.5°	819.7	819.7	821.3	816.7
25°	789.4	787.9	791.0	787.9
27.5°	751.5	750.0	751.5	748.5
30°	700.1	698.5	701.5	698.5
32.5°	642.4	639.5	642.4	639.5
35°	571.2	568.2	571.2	569.7
37.5°	492.5	489.4	492.5	490.9
40°	409.1	407.5	410.6	409.1
42.5°	333.3	330.3	333.3	331.8
45°	266.6	263.7	266.6	265.2
47.5°	210.6	209.1	212.1	210.6
50°	165.1	163.7	165.1	165.1
52.5°	127.3	125.7	127.3	127.3
55°	97.0	95.4	97.0	97.0
57.5°	72.8	71.2	72.8	72.8
60°	53.0	53.0	53.0	53.0
62.5°	37.9	36.4	37.9	37.9
65°	25.8	25.8	25.8	25.8
67.5°	18.1	18.1	18.1	18.1
70°	12.2	12.2	12.2	12.2
72.5°	9.1	9.1	9.1	7.6
75°	6.1	6.1	6.1	6.1
77.5°	4.5	3.0	4.5	4.5
80°	3.0	3.0	3.0	3.0
82.5°	1.5	1.5	1.5	1.5
85°	1.5	1.5	1.5	1.5
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)