

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: P136994

Luminaire Tested: **LDSQ6A15D010TE ESQ6A15935 6LSQLWW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136994
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23675)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQ6A15D010TE ESQ6A15935 6LSQLWW1LI
Description: PORTFOLIO LED SQUARE 6 INCH 50 DEGREE CUTOFF RECESSED SINGLE WALL
WASH LUMINAIRE
SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 3500K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1130.5 lumens
Efficiency: N/A
Efficacy: 50.0 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.06 / 1.13
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

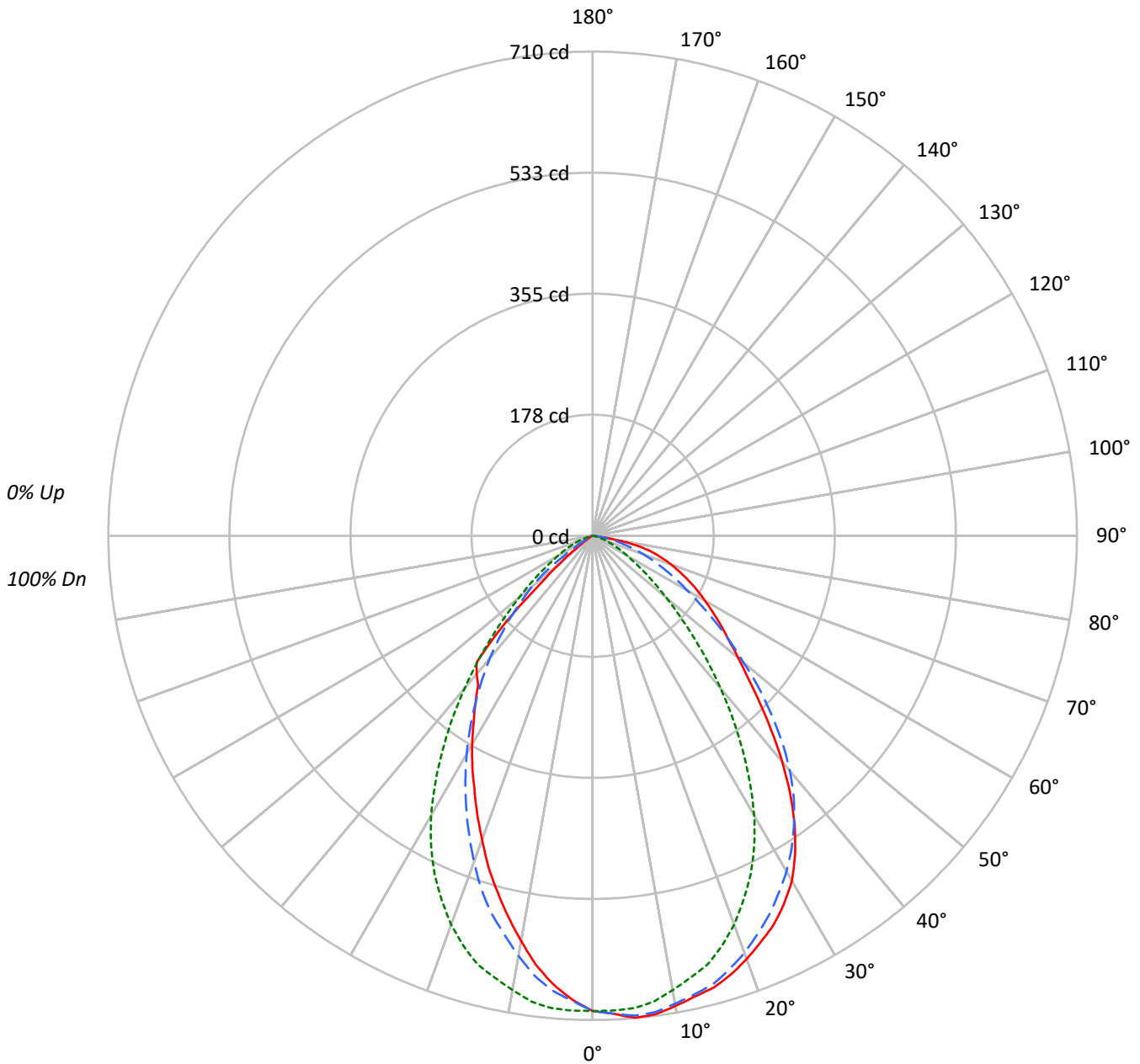
Input Watts (W): 22.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89																			
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79																			
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	71	70																			
4	89	80	72	67	87	78	71	66	76	70	65	74	69	65	72	67	64	62																			
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55																			
6	78	66	59	53	76	65	58	53	64	57	53	62	57	52	61	56	52	50																			
7	73	61	53	48	71	60	53	48	59	52	48	58	52	47	56	51	47	45																			
8	68	56	49	44	67	56	49	44	55	48	43	53	47	43	52	47	43	41																			
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	43	39	38																			
10	61	49	42	37	59	48	41	37	47	41	37	46	41	37	46	40	36	35																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	30001	30001	30001
5°	30665	30051	28543
10°	30608	29568	26381
15°	30569	29014	24075
20°	30259	27794	21700
25°	29872	26034	19487
30°	29054	23546	17560
35°	27137	20141	15732
40°	24297	16378	14866
45°	21117	12635	11094
50°	18668	9331	4026
55°	17235	6891	953
60°	16361	5046	551
65°	15812	3719	316
70°	15346	2593	201
75°	14756	1580	266
80°	9050	769	397
85°	0	0	790



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.0	5.8
10°-20°	176.8	15.6
20°-30°	243.7	21.6
30°-40°	250.4	22.1
40°-50°	195.5	17.3
50°-60°	110.0	9.7
60°-70°	59.9	5.3
70°-80°	26.7	2.4
80°-90°	2.5	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°	485.5	42.9
0°-40°	735.9	65.1
0°-60°	1041.5	92.1
0°-90°	1130.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1130.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	697	697	697	697	697	
5°	710	706	695	670	660	67
15°	686	681	651	573	540	193
25°	629	613	548	439	410	289
35°	516	515	383	299	299	320
45°	347	371	208	171	182	269
55°	230	219	92	52	13	207
65°	155	116	36	5	3	154
75°	89	46	10	2	2	89
85°	0	2	0	2	2	8
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°	696.8	696.8	696.8	696.8	696.8	696.8	696.8	696.8	696.8	696.8	696.8
2.5°	701.6	706.3	704.7	707.9	709.5	709.5	709.5	703.2	704.7	701.6	701.6
5°	709.5	712.7	711.1	714.2	715.8	715.8	715.8	709.5	711.1	706.3	706.3
7.5°	707.9	711.1	709.5	712.7	715.8	715.8	714.2	709.5	709.5	704.7	704.7
10°	700.1	703.2	703.2	704.7	707.9	707.9	706.3	701.6	701.6	696.8	696.8
12.5°	692.1	696.8	695.3	698.4	700.1	700.1	700.1	693.7	693.7	688.9	688.9
15°	685.8	690.5	688.9	692.1	693.7	693.7	692.1	687.3	685.8	681.0	681.0
17.5°	674.6	679.4	676.3	679.4	682.6	681.0	679.4	674.6	673.1	666.7	666.7
20°	660.4	663.6	662.0	663.6	666.7	666.7	665.1	658.8	657.2	650.9	649.3
22.5°	644.6	647.7	646.2	647.7	650.9	649.3	647.7	641.4	638.3	631.9	630.3
25°	628.8	631.9	630.3	631.9	635.0	633.5	630.3	624.0	620.8	612.9	611.4
27.5°	608.1	611.4	609.7	612.9	616.1	614.5	611.4	605.0	600.2	590.7	589.2
30°	584.4	587.6	585.9	587.6	590.7	590.7	587.6	582.8	578.0	568.5	563.8
32.5°	552.7	557.5	555.9	560.6	563.8	563.8	563.8	557.5	552.7	543.2	536.9
35°	516.3	521.0	519.4	524.2	528.9	532.2	533.7	530.6	527.4	514.7	506.8
37.5°	475.1	479.8	478.3	484.6	491.0	495.7	498.9	497.2	495.7	484.6	475.1
40°	432.3	435.5	435.5	440.2	449.8	456.1	460.9	460.9	459.3	449.8	441.9
42.5°	388.0	392.8	392.8	399.1	407.0	414.9	418.1	421.3	422.8	411.8	403.9
45°	346.8	350.0	350.0	354.8	364.3	372.2	377.0	380.1	381.7	370.6	362.7
47.5°	308.8	312.0	313.6	320.0	324.7	331.0	335.7	337.4	338.9	331.0	321.5
50°	278.7	280.4	281.9	286.6	289.8	294.5	297.8	299.3	299.3	288.3	280.4
52.5°	251.8	253.4	253.4	258.2	261.3	264.5	264.5	264.5	262.9	253.4	240.7
55°	229.6	231.3	231.3	234.4	236.0	237.5	236.0	232.8	229.6	218.6	205.8
57.5°	209.1	210.6	210.6	212.2	212.2	212.2	209.1	205.8	199.6	186.9	175.8
60°	190.0	191.7	191.7	193.2	193.2	191.7	186.9	180.5	172.6	160.0	148.8
62.5°	172.6	174.3	174.3	174.3	174.3	171.0	164.7	156.8	147.3	137.8	126.7
65°	155.2	156.8	155.2	156.8	155.2	150.5	142.6	134.7	125.1	115.6	106.1
67.5°	137.8	139.3	137.8	137.8	134.7	129.9	121.9	114.0	106.1	96.6	87.1
70°	121.9	121.9	120.4	118.8	114.0	109.3	101.4	95.0	87.1	79.2	71.3
72.5°	104.5	106.1	103.0	99.7	95.0	88.7	82.3	76.0	69.7	61.8	55.4
75°	88.7	88.7	83.9	80.8	76.0	71.3	64.9	58.6	52.2	46.0	41.2
77.5°	66.5	66.5	61.8	60.1	55.4	52.2	46.0	41.2	36.5	33.2	28.6
80°	36.5	36.5	34.8	33.2	31.7	30.1	26.9	25.3	22.2	19.0	15.8
82.5°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	7.9	6.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	0.0
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	696.8	696.8	696.8	696.8	696.8	696.8	696.8	696.8	696.8	696.8	696.8
2.5°	700.1	703.2	698.4	703.2	701.6	692.1	701.6	696.8	693.7	696.8	692.1
5°	704.7	706.3	701.6	706.3	703.2	693.7	700.1	695.3	692.1	693.7	687.3
7.5°	703.2	704.7	700.1	703.2	698.4	688.9	695.3	688.9	684.2	684.2	676.3
10°	695.3	696.8	690.5	693.7	688.9	677.9	684.2	676.3	671.5	668.4	660.4
12.5°	687.3	687.3	682.6	684.2	679.4	668.4	671.5	663.6	657.2	654.1	643.0
15°	677.9	677.9	673.1	674.6	668.4	657.2	660.4	650.9	643.0	638.3	625.5
17.5°	663.6	663.6	657.2	658.8	650.9	639.8	643.0	630.3	622.4	614.5	601.8
20°	644.6	643.0	636.7	636.7	628.8	616.1	619.3	606.6	595.5	587.6	573.3
22.5°	625.5	622.4	616.1	614.5	605.0	590.7	592.3	578.0	567.0	557.5	541.6
25°	603.4	598.6	590.7	587.6	578.0	563.8	563.8	548.0	536.9	524.2	508.4
27.5°	581.2	574.9	563.8	559.0	546.4	530.6	528.9	513.1	500.5	487.8	470.4
30°	554.3	546.4	532.2	525.8	511.5	494.1	489.3	473.6	459.3	445.0	430.8
32.5°	524.2	514.7	498.9	489.3	471.9	452.9	448.2	429.2	416.5	402.3	386.5
35°	492.6	479.8	462.4	449.8	430.8	411.8	402.3	383.2	370.6	356.3	343.6
37.5°	459.3	443.5	422.8	408.6	386.5	369.0	356.3	337.4	324.7	312.0	300.9
40°	424.4	405.4	383.2	364.3	342.1	324.7	310.4	291.4	280.4	269.2	259.7
42.5°	386.5	365.8	342.1	321.5	297.8	280.4	264.5	248.7	237.5	226.5	218.6
45°	345.3	324.7	299.3	278.7	255.0	237.5	223.3	207.5	197.9	188.4	182.2
47.5°	302.5	283.5	258.2	237.5	215.4	199.6	185.3	171.0	161.5	155.2	150.5
50°	261.3	242.3	220.1	199.6	179.0	164.7	152.1	139.3	131.4	125.1	120.4
52.5°	223.3	205.8	185.3	167.9	148.8	134.7	123.5	114.0	106.1	99.7	95.0
55°	190.0	174.3	155.2	139.3	123.5	110.9	101.4	91.8	85.6	77.6	72.9
57.5°	160.0	145.7	129.9	115.6	99.7	90.3	82.3	72.9	66.5	61.8	55.4
60°	136.2	123.5	107.7	95.0	82.3	74.4	66.5	58.6	53.9	47.5	42.7
62.5°	114.0	103.0	90.3	77.6	66.5	60.1	53.9	47.5	41.2	36.5	31.7
65°	95.0	83.9	72.9	61.8	53.9	47.5	42.7	36.5	31.7	26.9	22.2
67.5°	77.6	68.1	57.0	49.1	42.7	38.0	33.2	26.9	23.8	19.0	15.8
70°	61.8	53.9	44.3	38.0	33.2	28.6	23.8	20.6	15.8	12.7	9.5
72.5°	47.5	41.2	33.2	28.6	25.3	20.6	17.4	14.3	11.1	9.5	6.4
75°	34.8	28.6	23.8	20.6	17.4	14.3	11.1	9.5	7.9	4.8	3.1
77.5°	23.8	19.0	15.8	12.7	11.1	9.5	6.4	6.4	4.8	3.1	1.6
80°	14.3	9.5	7.9	6.4	4.8	4.8	3.1	3.1	1.6	1.6	0.0
82.5°	4.8	3.1	1.6	1.6	1.6	1.6	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	696.8	696.8	696.8	696.8	696.8	696.8	696.8	696.8	696.8	696.8	696.8
2.5°	685.8	688.9	685.8	688.9	688.9	682.6	684.2	684.2	679.4	679.4	681.0
5°	679.4	679.4	676.3	677.9	677.9	669.9	669.9	669.9	663.6	662.0	662.0
7.5°	668.4	666.7	660.4	660.4	658.8	650.9	647.7	646.2	639.8	638.3	636.7
10°	650.9	647.7	639.8	638.3	635.0	625.5	620.8	617.6	611.4	608.1	608.1
12.5°	631.9	628.8	619.3	616.1	609.7	598.6	593.9	590.7	581.2	576.5	576.5
15°	612.9	608.1	597.1	590.7	584.4	573.3	567.0	562.2	552.7	548.0	546.4
17.5°	587.6	581.2	570.1	562.2	554.3	543.2	536.9	528.9	521.0	516.3	513.1
20°	557.5	549.6	535.3	528.9	521.0	508.4	500.5	495.7	486.2	481.5	479.8
22.5°	525.8	516.3	502.0	494.1	484.6	473.6	468.8	460.9	452.9	449.8	446.6
25°	491.0	483.1	467.2	459.3	449.8	438.7	434.0	427.6	421.3	419.7	414.9
27.5°	452.9	445.0	432.3	422.8	414.9	403.9	399.1	394.4	388.0	386.5	384.9
30°	413.3	405.4	392.8	384.9	377.0	369.0	364.3	359.5	354.8	354.8	354.8
32.5°	372.2	364.3	354.8	346.8	340.5	334.1	331.0	326.2	323.1	324.7	326.2
35°	329.4	324.7	315.2	310.4	305.7	299.3	297.8	294.5	291.4	293.0	293.0
37.5°	288.3	285.0	278.7	274.0	270.8	266.1	266.1	262.9	259.7	262.9	262.9
40°	248.7	245.4	240.7	239.2	236.0	234.4	232.8	232.8	231.3	234.4	240.7
42.5°	210.6	209.1	205.8	204.3	202.7	201.1	202.7	202.7	205.8	217.0	229.6
45°	175.8	175.8	172.6	172.6	171.0	171.0	172.6	177.4	186.9	199.6	201.1
47.5°	144.1	144.1	140.9	140.9	140.9	140.9	147.3	155.2	153.6	147.3	133.0
50°	115.6	114.0	112.5	112.5	112.5	115.6	118.8	109.3	96.6	82.3	74.4
52.5°	90.3	87.1	85.6	85.6	87.1	87.1	77.6	63.4	53.9	49.1	42.7
55°	68.1	64.9	61.8	61.8	60.1	52.2	41.2	36.5	28.6	25.3	22.2
57.5°	49.1	47.5	42.7	39.6	33.2	26.9	22.2	15.8	14.3	11.1	9.5
60°	36.5	33.2	28.6	23.8	19.0	14.3	9.5	7.9	7.9	6.4	6.4
62.5°	26.9	23.8	19.0	14.3	9.5	6.4	6.4	6.4	4.8	4.8	4.8
65°	19.0	15.8	11.1	7.9	4.8	4.8	4.8	4.8	4.8	3.1	3.1
67.5°	12.7	9.5	4.8	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
70°	7.9	4.8	1.6	3.1	1.6	1.6	3.1	3.1	3.1	3.1	1.6
72.5°	3.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
75°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
77.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	1.6
85°	0.0	0.0	0.0	0.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6
87.5°	0.0	0.0	0.0	0.0	0.0	1.6	1.6	0.0	0.0	0.0	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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CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15935 6LSQLWW1LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	696.8	696.8	696.8	696.8
2.5°	677.9	677.9	679.4	681.0
5°	658.8	660.4	660.4	660.4
7.5°	633.5	633.5	635.0	635.0
10°	601.8	601.8	603.4	603.4
12.5°	571.8	570.1	571.8	571.8
15°	541.6	540.1	540.1	540.1
17.5°	508.4	506.8	506.8	508.4
20°	475.1	473.6	473.6	473.6
22.5°	441.9	441.9	441.9	441.9
25°	411.8	410.2	410.2	410.2
27.5°	381.7	381.7	381.7	381.7
30°	351.5	351.5	353.2	353.2
32.5°	324.7	324.7	324.7	324.7
35°	293.0	296.2	297.8	299.3
37.5°	264.5	269.2	274.0	275.6
40°	247.1	256.6	262.9	264.5
42.5°	239.2	247.1	250.2	251.8
45°	196.4	188.4	183.7	182.2
47.5°	120.4	109.3	103.0	101.4
50°	69.7	64.9	61.8	60.1
52.5°	38.0	33.2	31.7	31.7
55°	19.0	15.8	14.3	12.7
57.5°	7.9	7.9	7.9	7.9
60°	6.4	6.4	6.4	6.4
62.5°	4.8	4.8	4.8	4.8
65°	3.1	3.1	3.1	3.1
67.5°	3.1	3.1	3.1	3.1
70°	1.6	1.6	1.6	1.6
72.5°	1.6	1.6	1.6	1.6
75°	1.6	1.6	1.6	1.6
77.5°	1.6	1.6	1.6	1.6
80°	1.6	1.6	1.6	1.6
82.5°	1.6	1.6	0.0	1.6
85°	1.6	1.6	1.6	1.6
87.5°	0.0	1.6	0.0	1.6
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)