

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: P136993

Luminaire Tested: **LDSQ6A15D010TE ESQ6A15930 6LSQLWW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136993
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 ESQ6A15930 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 3000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1102.3 lumens
Efficiency: N/A
Efficacy: 48.8 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

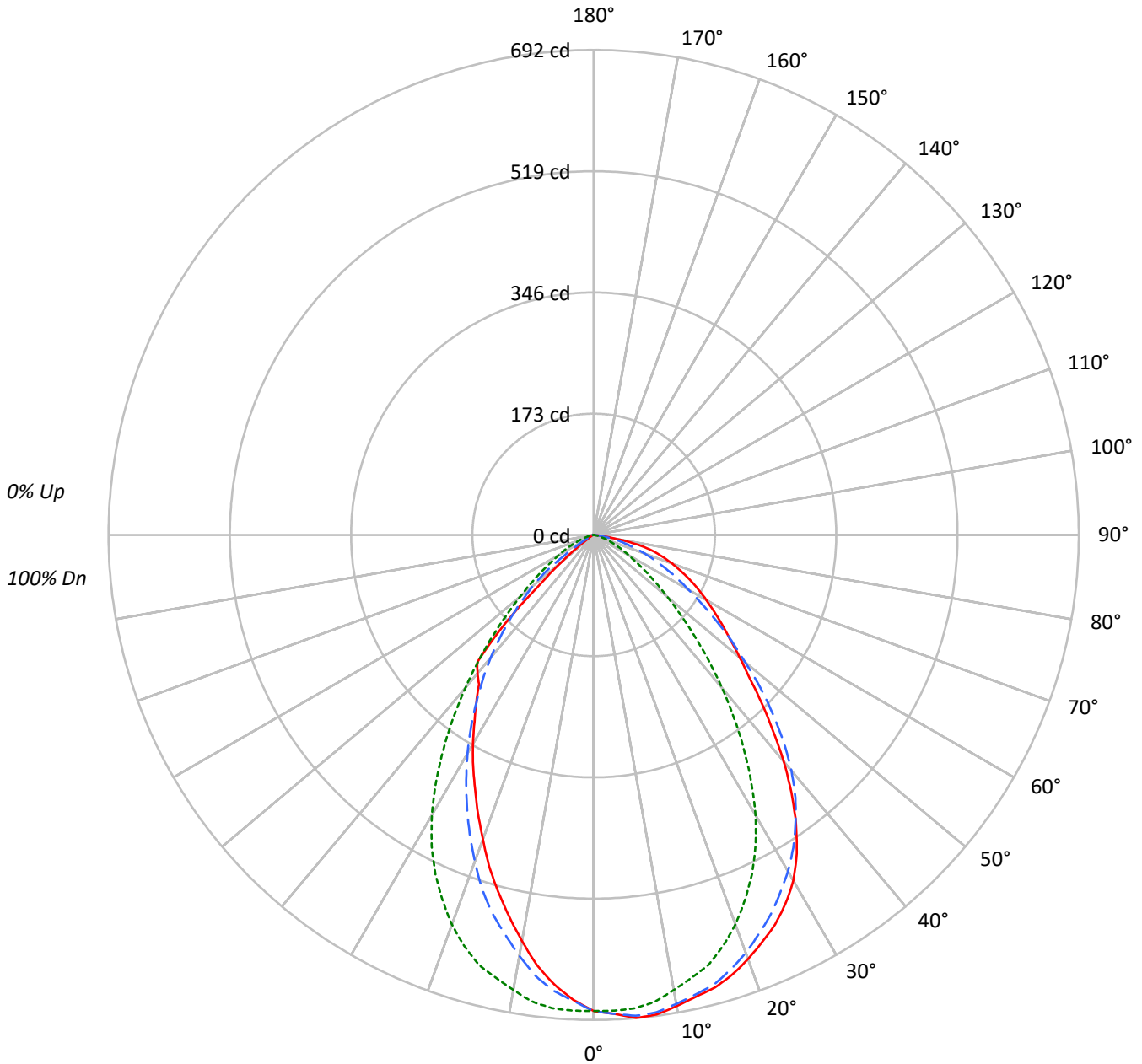
Input Watts (W): 22.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P136993

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15930 6LSQLWW1LI

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°	29252	29252	29252
5°	29900	29299	27834
10°	29843	28825	25720
15°	29803	28291	23468
20°	29507	27102	21155
25°	29122	25383	19003
30°	28328	22954	17122
35°	26459	19642	15343
40°	23690	15968	14495
45°	20593	12318	10814
50°	18206	9096	3932
55°	16807	6718	923
60°	15956	4917	534
65°	15414	3627	316
70°	14968	2530	201
75°	14390	1547	266
80°	8827	769	397
85°	0	0	790



TEST NUMBER: P136993

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15930 6LSQLWW1LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.4	5.8
10°-20°	172.4	15.6
20°-30°	237.6	21.6
30°-40°	244.1	22.1
40°-50°	190.7	17.3
50°-60°	107.3	9.7
60°-70°	58.4	5.3
70°-80°	26.0	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°	473.4	42.9
0°-40°	717.5	65.1
0°-60°	1015.5	92.1
0°-90°	1102.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1102.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	679	679	679	679	679	
5°	692	689	678	653	644	66
15°	669	664	635	559	526	188
25°	613	598	534	428	400	282
35°	503	502	374	292	292	312
45°	338	361	202	167	178	263
55°	224	213	90	51	12	202
65°	151	113	36	5	3	150
75°	86	45	9	2	2	87
85°	0	2	0	2	2	7
90°	0	0	0	0	0	



TEST NUMBER: P136993

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15930 6LSQLWW1LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	679.4	679.4	679.4	679.4	679.4	679.4	679.4	679.4	679.4	679.4	679.4
2.5°	684.1	688.7	687.2	690.3	691.8	691.8	691.8	685.6	687.2	684.1	684.1
5°	691.8	694.9	693.3	696.5	698.0	698.0	698.0	691.8	693.3	688.7	688.7
7.5°	690.3	693.3	691.8	694.9	698.0	698.0	696.5	691.8	691.8	687.2	687.2
10°	682.6	685.6	685.6	687.2	690.3	690.3	688.7	684.1	684.1	679.4	679.4
12.5°	674.8	679.4	677.9	681.0	682.6	682.6	682.6	676.4	676.4	671.7	671.7
15°	668.6	673.3	671.7	674.8	676.4	676.4	674.8	670.2	668.6	664.0	664.0
17.5°	657.9	662.5	659.3	662.5	665.5	664.0	662.5	657.9	656.3	650.1	650.1
20°	644.0	647.0	645.4	647.0	650.1	650.1	648.6	642.4	640.8	634.7	633.1
22.5°	628.5	631.6	630.1	631.6	634.7	633.1	631.6	625.4	622.3	616.1	614.6
25°	613.0	616.1	614.6	616.1	619.2	617.7	614.6	608.4	605.4	597.6	596.1
27.5°	592.9	596.1	594.5	597.6	600.7	599.1	596.1	589.9	585.3	576.0	574.4
30°	569.8	572.9	571.4	572.9	576.0	576.0	572.9	568.3	563.7	554.3	549.7
32.5°	539.0	543.6	542.0	546.6	549.7	549.7	549.7	543.6	539.0	529.7	523.5
35°	503.4	508.0	506.5	511.2	515.8	518.9	520.4	517.3	514.2	501.9	494.1
37.5°	463.3	467.9	466.4	472.6	478.7	483.3	486.4	484.9	483.3	472.6	463.3
40°	421.5	424.7	424.7	429.3	438.6	444.8	449.4	449.4	447.8	438.6	430.8
42.5°	378.3	383.0	383.0	389.1	396.9	404.6	407.6	410.8	412.3	401.5	393.7
45°	338.2	341.2	341.2	345.9	355.1	362.9	367.5	370.6	372.2	361.3	353.7
47.5°	301.1	304.2	305.8	311.9	316.5	322.7	327.4	328.9	330.5	322.7	313.5
50°	271.8	273.4	274.8	279.5	282.6	287.3	290.3	291.9	291.9	281.1	273.4
52.5°	245.5	247.1	247.1	251.7	254.7	257.9	257.9	257.9	256.3	247.1	234.8
55°	223.9	225.5	225.5	228.5	230.1	231.6	230.1	227.0	223.9	213.1	200.8
57.5°	203.8	205.4	205.4	206.9	206.9	206.9	203.8	200.8	194.6	182.2	171.4
60°	185.3	186.9	186.9	188.4	188.4	186.9	182.2	176.0	168.4	155.9	145.1
62.5°	168.4	169.8	169.8	169.8	169.8	166.8	160.6	152.9	143.6	134.4	123.5
65°	151.3	152.9	151.3	152.9	151.3	146.7	139.0	131.2	122.0	112.7	103.4
67.5°	134.4	135.8	134.4	134.4	131.2	126.6	118.9	111.2	103.4	94.2	84.9
70°	118.9	118.9	117.3	115.8	111.2	106.6	98.8	92.7	84.9	77.2	69.4
72.5°	102.0	103.4	100.4	97.3	92.7	86.5	80.3	74.1	68.0	60.2	54.1
75°	86.5	86.5	81.9	78.7	74.1	69.4	63.3	57.1	50.9	44.8	40.2
77.5°	64.8	64.8	60.2	58.7	54.1	50.9	44.8	40.2	35.6	32.4	27.8
80°	35.6	35.6	34.0	32.4	30.9	29.4	26.2	24.7	21.6	18.5	15.5
82.5°	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	7.7	6.2
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



TEST NUMBER: P136993

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15930 6LSQLWW1LI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	679.4	679.4	679.4	679.4	679.4	679.4	679.4	679.4	679.4	679.4	679.4
2.5°	682.6	685.6	681.0	685.6	684.1	674.8	684.1	679.4	676.4	679.4	674.8
5°	687.2	688.7	684.1	688.7	685.6	676.4	682.6	677.9	674.8	676.4	670.2
7.5°	685.6	687.2	682.6	685.6	681.0	671.7	677.9	671.7	667.1	667.1	659.3
10°	677.9	679.4	673.3	676.4	671.7	660.9	667.1	659.3	654.7	651.7	644.0
12.5°	670.2	670.2	665.5	667.1	662.5	651.7	654.7	647.0	640.8	637.8	626.9
15°	660.9	660.9	656.3	657.9	651.7	640.8	644.0	634.7	626.9	622.3	610.0
17.5°	647.0	647.0	640.8	642.4	634.7	623.9	626.9	614.6	606.8	599.1	586.8
20°	628.5	626.9	620.8	620.8	613.0	600.7	603.8	591.5	580.6	572.9	559.0
22.5°	610.0	606.8	600.7	599.1	589.9	576.0	577.6	563.7	552.8	543.6	528.1
25°	588.3	583.7	576.0	572.9	563.7	549.7	549.7	534.3	523.5	511.2	495.7
27.5°	566.7	560.5	549.7	545.1	532.7	517.3	515.8	500.3	487.9	475.6	458.7
30°	540.4	532.7	518.9	512.7	498.8	481.8	477.2	461.7	447.8	433.9	420.1
32.5°	511.2	501.9	486.4	477.2	460.1	441.6	437.0	418.5	406.2	392.3	376.8
35°	480.2	467.9	450.9	438.6	420.1	401.5	392.3	373.7	361.3	347.4	335.1
37.5°	447.8	432.4	412.3	398.4	376.8	359.8	347.4	328.9	316.5	304.2	293.4
40°	413.8	395.3	373.7	355.1	333.6	316.5	302.6	284.1	273.4	262.5	253.3
42.5°	376.8	356.7	333.6	313.5	290.3	273.4	257.9	242.4	231.6	220.9	213.1
45°	336.6	316.5	291.9	271.8	248.6	231.6	217.7	202.3	193.0	183.7	177.6
47.5°	294.9	276.4	251.7	231.6	210.0	194.6	180.7	166.8	157.5	151.3	146.7
50°	254.7	236.2	214.7	194.6	174.5	160.6	148.3	135.8	128.2	122.0	117.3
52.5°	217.7	200.8	180.7	163.7	145.1	131.2	120.5	111.2	103.4	97.3	92.7
55°	185.3	169.8	151.3	135.8	120.5	108.1	98.8	89.5	83.4	75.7	71.0
57.5°	155.9	142.1	126.6	112.7	97.3	88.0	80.3	71.0	64.8	60.2	54.1
60°	132.8	120.5	105.0	92.7	80.3	72.6	64.8	57.1	52.5	46.3	41.7
62.5°	111.2	100.4	88.0	75.7	64.8	58.7	52.5	46.3	40.2	35.6	30.9
65°	92.7	81.9	71.0	60.2	52.5	46.3	41.7	35.6	30.9	26.2	21.6
67.5°	75.7	66.4	55.6	47.9	41.7	37.0	32.4	26.2	23.1	18.5	15.5
70°	60.2	52.5	43.2	37.0	32.4	27.8	23.1	20.1	15.5	12.3	9.3
72.5°	46.3	40.2	32.4	27.8	24.7	20.1	16.9	13.9	10.8	9.3	6.2
75°	34.0	27.8	23.1	20.1	16.9	13.9	10.8	9.3	7.7	4.6	3.1
77.5°	23.1	18.5	15.5	12.3	10.8	9.3	6.2	6.2	4.6	3.1	1.6
80°	13.9	9.3	7.7	6.2	4.6	4.6	3.1	3.1	1.6	1.6	0.0
82.5°	4.6	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



TEST NUMBER: P136993

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15930 6LSQLWW1LI

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	679.4	679.4	679.4	679.4	679.4	679.4	679.4	679.4	679.4	679.4	679.4
2.5°	668.6	671.7	668.6	671.7	671.7	665.5	667.1	667.1	662.5	662.5	664.0
5°	662.5	662.5	659.3	660.9	660.9	653.2	653.2	653.2	647.0	645.4	645.4
7.5°	651.7	650.1	644.0	644.0	642.4	634.7	631.6	630.1	623.9	622.3	620.8
10°	634.7	631.6	623.9	622.3	619.2	610.0	605.4	602.2	596.1	592.9	592.9
12.5°	616.1	613.0	603.8	600.7	594.5	583.7	579.0	576.0	566.7	562.1	562.1
15°	597.6	592.9	582.2	576.0	569.8	559.0	552.8	548.2	539.0	534.3	532.7
17.5°	572.9	566.7	555.9	548.2	540.4	529.7	523.5	515.8	508.0	503.4	500.3
20°	543.6	535.8	521.9	515.8	508.0	495.7	487.9	483.3	474.0	469.4	467.9
22.5°	512.7	503.4	489.5	481.8	472.6	461.7	457.1	449.4	441.6	438.6	435.4
25°	478.7	471.0	455.5	447.8	438.6	427.7	423.1	416.9	410.8	409.2	404.6
27.5°	441.6	433.9	421.5	412.3	404.6	393.7	389.1	384.5	378.3	376.8	375.2
30°	403.0	395.3	383.0	375.2	367.5	359.8	355.1	350.5	345.9	345.9	345.9
32.5°	362.9	355.1	345.9	338.2	332.0	325.8	322.7	318.1	315.0	316.5	318.1
35°	321.2	316.5	307.3	302.6	298.0	291.9	290.3	287.3	284.1	285.7	285.7
37.5°	281.1	278.0	271.8	267.2	264.1	259.4	259.4	256.3	253.3	256.3	256.3
40°	242.4	239.4	234.8	233.2	230.1	228.5	227.0	227.0	225.5	228.5	234.8
42.5°	205.4	203.8	200.8	199.2	197.6	196.1	197.6	197.6	200.8	211.6	223.9
45°	171.4	171.4	168.4	168.4	166.8	166.8	168.4	173.0	182.2	194.6	196.1
47.5°	140.5	140.5	137.4	137.4	137.4	137.4	143.6	151.3	149.8	143.6	129.7
50°	112.7	111.2	109.6	109.6	109.6	112.7	115.8	106.6	94.2	80.3	72.6
52.5°	88.0	84.9	83.4	83.4	84.9	84.9	75.7	61.8	52.5	47.9	41.7
55°	66.4	63.3	60.2	60.2	58.7	50.9	40.2	35.6	27.8	24.7	21.6
57.5°	47.9	46.3	41.7	38.6	32.4	26.2	21.6	15.5	13.9	10.8	9.3
60°	35.6	32.4	27.8	23.1	18.5	13.9	9.3	7.7	7.7	6.2	6.2
62.5°	26.2	23.1	18.5	13.9	9.3	6.2	6.2	6.2	4.6	4.6	4.6
65°	18.5	15.5	10.8	7.7	4.6	4.6	4.6	4.6	4.6	3.1	3.1
67.5°	12.3	9.3	4.6	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
70°	7.7	4.6	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



TEST NUMBER: P136993

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15930 6LSQLWW1LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	679.4	679.4	679.4	679.4
2.5°	660.9	660.9	662.5	664.0
5°	642.4	644.0	644.0	644.0
7.5°	617.7	617.7	619.2	619.2
10°	586.8	586.8	588.3	588.3
12.5°	557.5	555.9	557.5	557.5
15°	528.1	526.5	526.5	526.5
17.5°	495.7	494.1	494.1	495.7
20°	463.3	461.7	461.7	461.7
22.5°	430.8	430.8	430.8	430.8
25°	401.5	400.0	400.0	400.0
27.5°	372.2	372.2	372.2	372.2
30°	342.8	342.8	344.4	344.4
32.5°	316.5	316.5	316.5	316.5
35°	285.7	288.7	290.3	291.9
37.5°	257.9	262.5	267.2	268.7
40°	240.9	250.1	256.3	257.9
42.5°	233.2	240.9	244.0	245.5
45°	191.5	183.7	179.1	177.6
47.5°	117.3	106.6	100.4	98.8
50°	68.0	63.3	60.2	58.7
52.5°	37.0	32.4	30.9	30.9
55°	18.5	15.5	13.9	12.3
57.5°	7.7	7.7	7.7	7.7
60°	6.2	6.2	6.2	6.2
62.5°	4.6	4.6	4.6	4.6
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)