

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: P136992

Luminaire Tested: **LDSQ6A15D010TE ESQ6A15927 6LSQLWW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136992
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 ESQ6A15927 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 2700K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1052.7 lumens
Efficiency: N/A
Efficacy: 46.6 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

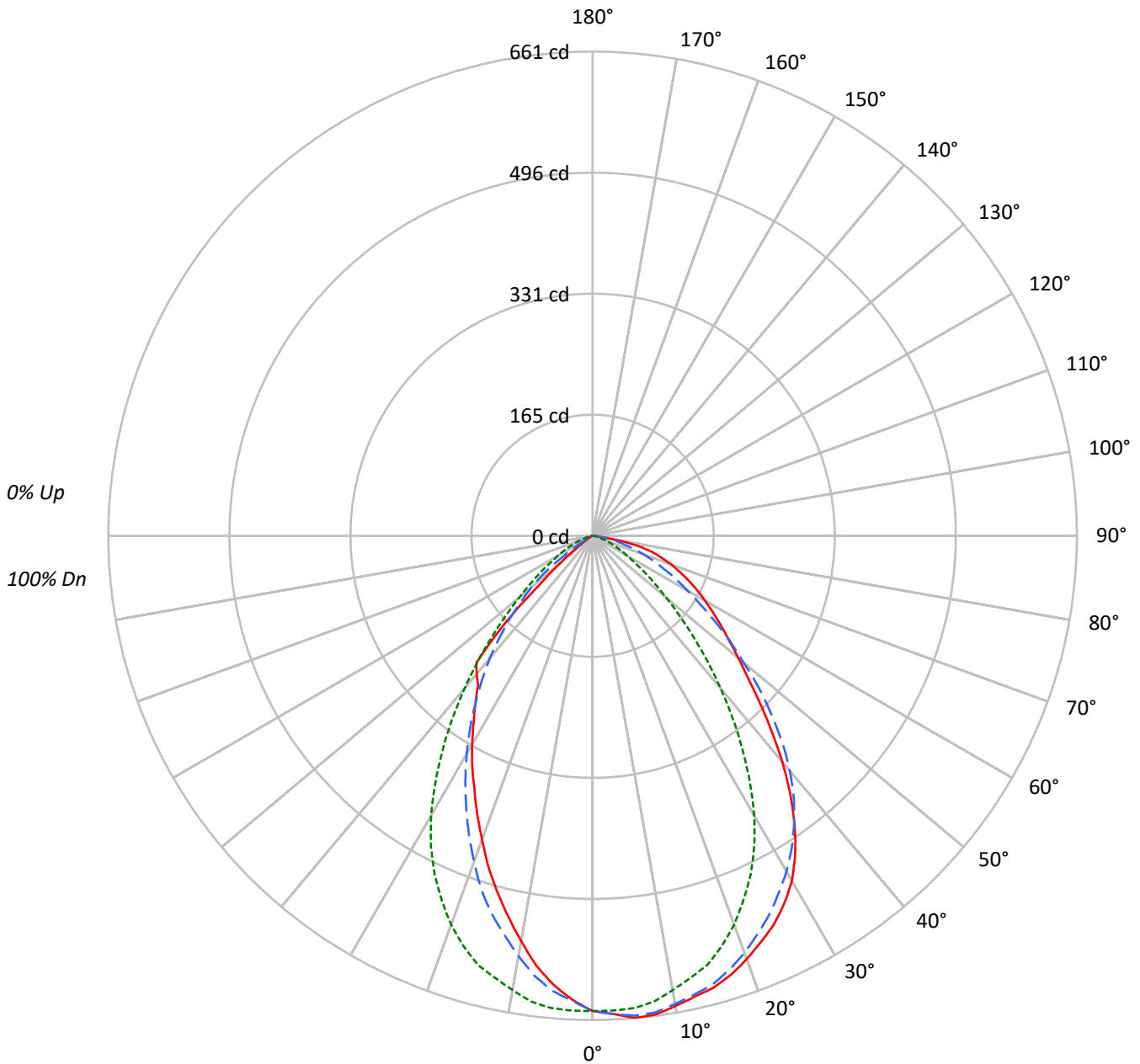
Input Watts (W): 22.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P136992

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15927 6LSQLWW1LI

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	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°	27935	27935	27935
5°	28551	27981	26580
10°	28497	27530	24562
15°	28461	27017	22417
20°	28179	25879	20206
25°	27815	24238	18143
30°	27051	21925	16352
35°	25271	18759	14649
40°	22628	15248	13843
45°	19667	11764	10327
50°	17382	8694	3751
55°	16056	6426	886
60°	15233	4693	508
65°	14721	3454	295
70°	14301	2417	189
75°	13741	1464	250
80°	8405	719	372
85°	0	0	741



TEST NUMBER: P136992

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15927 6LSQLWW1LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.6	5.8
10°-20°	164.7	15.6
20°-30°	226.9	21.6
30°-40°	233.1	22.1
40°-50°	182.1	17.3
50°-60°	102.5	9.7
60°-70°	55.7	5.3
70°-80°	24.8	2.4
80°-90°	2.3	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°	452.1	42.9
0°-40°	685.2	65.1
0°-60°	969.8	92.1
0°-90°	1052.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1052.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	649	649	649	649	649	
5°	661	658	647	624	615	63
15°	638	634	606	534	503	180
25°	586	571	510	408	382	269
35°	481	479	357	279	279	298
45°	323	345	193	159	170	251
55°	214	204	86	49	12	192
65°	144	108	34	4	3	143
75°	83	43	9	2	2	83
85°	0	2	0	2	2	7
90°	0	0	0	0	0	



TEST NUMBER: P136992

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15927 6LSQLWW1LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	648.8	648.8	648.8	648.8	648.8	648.8	648.8	648.8	648.8	648.8	648.8
2.5°	653.3	657.7	656.2	659.2	660.6	660.6	660.6	654.7	656.2	653.3	653.3
5°	660.6	663.6	662.1	665.1	666.5	666.5	666.5	660.6	662.1	657.7	657.7
7.5°	659.2	662.1	660.6	663.6	666.5	666.5	665.1	660.6	660.6	656.2	656.2
10°	651.8	654.7	654.7	656.2	659.2	659.2	657.7	653.3	653.3	648.8	648.8
12.5°	644.4	648.8	647.4	650.3	651.8	651.8	651.8	645.9	645.9	641.5	641.5
15°	638.5	643.0	641.5	644.4	645.9	645.9	644.4	640.0	638.5	634.1	634.1
17.5°	628.2	632.6	629.7	632.6	635.6	634.1	632.6	628.2	626.7	620.8	620.8
20°	615.0	617.9	616.4	617.9	620.8	620.8	619.4	613.5	612.0	606.1	604.6
22.5°	600.2	603.2	601.7	603.2	606.1	604.6	603.2	597.3	594.3	588.4	587.0
25°	585.5	588.4	587.0	588.4	591.4	589.9	587.0	581.1	578.1	570.7	569.3
27.5°	566.3	569.3	567.8	570.7	573.7	572.2	569.3	563.3	558.9	550.0	548.5
30°	544.1	547.1	545.6	547.1	550.0	550.0	547.1	542.7	538.2	529.4	525.0
32.5°	514.7	519.1	517.6	522.0	525.0	525.0	525.0	519.1	514.7	505.8	499.9
35°	480.8	485.2	483.7	488.1	492.6	495.5	497.0	494.0	491.1	479.3	471.9
37.5°	442.4	446.9	445.4	451.3	457.2	461.6	464.6	463.1	461.6	451.3	442.4
40°	402.6	405.5	405.5	409.9	418.8	424.7	429.1	429.1	427.6	418.8	411.4
42.5°	361.3	365.7	365.7	371.6	379.0	386.4	389.3	392.3	393.7	383.4	376.0
45°	323.0	325.9	325.9	330.4	339.2	346.6	351.0	353.9	355.4	345.1	337.7
47.5°	287.5	290.5	292.0	297.9	302.3	308.2	312.6	314.2	315.6	308.2	299.3
50°	259.5	261.0	262.5	266.9	269.9	274.3	277.2	278.7	278.7	268.4	261.0
52.5°	234.5	236.0	236.0	240.4	243.3	246.3	246.3	246.3	244.8	236.0	224.2
55°	213.9	215.3	215.3	218.3	219.8	221.2	219.8	216.8	213.9	203.5	191.8
57.5°	194.7	196.2	196.2	197.6	197.6	197.6	194.7	191.8	185.8	174.0	163.7
60°	176.9	178.4	178.4	179.9	179.9	178.4	174.0	168.1	160.7	148.9	138.6
62.5°	160.7	162.2	162.2	162.2	162.2	159.2	153.3	146.0	137.1	128.3	118.0
65°	144.5	146.0	144.5	146.0	144.5	140.1	132.7	125.3	116.5	107.7	98.8
67.5°	128.3	129.8	128.3	128.3	125.3	120.9	113.6	106.2	98.8	90.0	81.1
70°	113.6	113.6	112.1	110.6	106.2	101.8	94.4	88.5	81.1	73.8	66.4
72.5°	97.3	98.8	95.9	92.9	88.5	82.6	76.7	70.8	64.9	57.5	51.6
75°	82.6	82.6	78.2	75.2	70.8	66.4	60.4	54.5	48.6	42.7	38.3
77.5°	61.9	61.9	57.5	56.0	51.6	48.6	42.7	38.3	33.9	30.9	26.5
80°	33.9	33.9	32.4	30.9	29.5	28.0	25.1	23.6	20.6	17.7	14.7
82.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	7.4	5.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	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: P136992

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15927 6LSQLWW1LI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	648.8	648.8	648.8	648.8	648.8	648.8	648.8	648.8	648.8	648.8	648.8
2.5°	651.8	654.7	650.3	654.7	653.3	644.4	653.3	648.8	645.9	648.8	644.4
5°	656.2	657.7	653.3	657.7	654.7	645.9	651.8	647.4	644.4	645.9	640.0
7.5°	654.7	656.2	651.8	654.7	650.3	641.5	647.4	641.5	637.1	637.1	629.7
10°	647.4	648.8	643.0	645.9	641.5	631.2	637.1	629.7	625.3	622.3	615.0
12.5°	640.0	640.0	635.6	637.1	632.6	622.3	625.3	617.9	612.0	609.1	598.7
15°	631.2	631.2	626.7	628.2	622.3	612.0	615.0	606.1	598.7	594.3	582.5
17.5°	617.9	617.9	612.0	613.5	606.1	595.8	598.7	587.0	579.6	572.2	560.3
20°	600.2	598.7	592.8	592.8	585.5	573.7	576.6	564.8	554.4	547.1	533.8
22.5°	582.5	579.6	573.7	572.2	563.3	550.0	551.5	538.2	527.9	519.1	504.3
25°	561.8	557.4	550.0	547.1	538.2	525.0	525.0	510.2	499.9	488.1	473.4
27.5°	541.2	535.3	525.0	520.5	508.8	494.0	492.6	477.8	466.0	454.2	437.9
30°	516.1	508.8	495.5	489.6	476.3	460.1	455.7	441.0	427.6	414.4	401.1
32.5°	488.1	479.3	464.6	455.7	439.5	421.7	417.3	399.6	387.8	374.6	359.8
35°	458.7	446.9	430.6	418.8	401.1	383.4	374.6	356.9	345.1	331.8	320.0
37.5°	427.6	412.9	393.7	380.5	359.8	343.6	331.8	314.2	302.3	290.5	280.2
40°	395.2	377.5	356.9	339.2	318.6	302.3	289.0	271.3	261.0	250.7	241.9
42.5°	359.8	340.7	318.6	299.3	277.2	261.0	246.3	231.5	221.2	210.9	203.5
45°	321.5	302.3	278.7	259.5	237.4	221.2	208.0	193.2	184.3	175.5	169.6
47.5°	281.6	264.0	240.4	221.2	200.6	185.8	172.5	159.2	150.4	144.5	140.1
50°	243.3	225.6	205.0	185.8	166.6	153.3	141.6	129.8	122.4	116.5	112.1
52.5°	208.0	191.8	172.5	156.3	138.6	125.3	115.0	106.2	98.8	92.9	88.5
55°	176.9	162.2	144.5	129.8	115.0	103.2	94.4	85.6	79.7	72.3	67.9
57.5°	148.9	135.7	120.9	107.7	92.9	84.1	76.7	67.9	61.9	57.5	51.6
60°	126.8	115.0	100.3	88.5	76.7	69.4	61.9	54.5	50.1	44.2	39.8
62.5°	106.2	95.9	84.1	72.3	61.9	56.0	50.1	44.2	38.3	33.9	29.5
65°	88.5	78.2	67.9	57.5	50.1	44.2	39.8	33.9	29.5	25.1	20.6
67.5°	72.3	63.5	53.0	45.7	39.8	35.4	30.9	25.1	22.1	17.7	14.7
70°	57.5	50.1	41.3	35.4	30.9	26.5	22.1	19.2	14.7	11.8	8.8
72.5°	44.2	38.3	30.9	26.5	23.6	19.2	16.2	13.3	10.3	8.8	5.9
75°	32.4	26.5	22.1	19.2	16.2	13.3	10.3	8.8	7.4	4.4	2.9
77.5°	22.1	17.7	14.7	11.8	10.3	8.8	5.9	5.9	4.4	2.9	1.5
80°	13.3	8.8	7.4	5.9	4.4	4.4	2.9	2.9	1.5	1.5	0.0
82.5°	4.4	2.9	1.5	1.5	1.5	1.5	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: P136992

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15927 6LSQLWW1LI

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	648.8	648.8	648.8	648.8	648.8	648.8	648.8	648.8	648.8	648.8	648.8
2.5°	638.5	641.5	638.5	641.5	641.5	635.6	637.1	637.1	632.6	632.6	634.1
5°	632.6	632.6	629.7	631.2	631.2	623.8	623.8	623.8	617.9	616.4	616.4
7.5°	622.3	620.8	615.0	615.0	613.5	606.1	603.2	601.7	595.8	594.3	592.8
10°	606.1	603.2	595.8	594.3	591.4	582.5	578.1	575.2	569.3	566.3	566.3
12.5°	588.4	585.5	576.6	573.7	567.8	557.4	553.0	550.0	541.2	536.8	536.8
15°	570.7	566.3	555.9	550.0	544.1	533.8	527.9	523.5	514.7	510.2	508.8
17.5°	547.1	541.2	530.9	523.5	516.1	505.8	499.9	492.6	485.2	480.8	477.8
20°	519.1	511.7	498.4	492.6	485.2	473.4	466.0	461.6	452.8	448.3	446.9
22.5°	489.6	480.8	467.5	460.1	451.3	441.0	436.5	429.1	421.7	418.8	415.8
25°	457.2	449.8	435.0	427.6	418.8	408.5	404.0	398.1	392.3	390.8	386.4
27.5°	421.7	414.4	402.6	393.7	386.4	376.0	371.6	367.2	361.3	359.8	358.4
30°	384.9	377.5	365.7	358.4	351.0	343.6	339.2	334.8	330.4	330.4	330.4
32.5°	346.6	339.2	330.4	323.0	317.1	311.1	308.2	303.7	300.8	302.3	303.7
35°	306.7	302.3	293.4	289.0	284.6	278.7	277.2	274.3	271.3	272.8	272.8
37.5°	268.4	265.4	259.5	255.1	252.2	247.7	247.7	244.8	241.9	244.8	244.8
40°	231.5	228.6	224.2	222.7	219.8	218.3	216.8	216.8	215.3	218.3	224.2
42.5°	196.2	194.7	191.8	190.3	188.8	187.2	188.8	188.8	191.8	202.1	213.9
45°	163.7	163.7	160.7	160.7	159.2	159.2	160.7	165.1	174.0	185.8	187.2
47.5°	134.2	134.2	131.2	131.2	131.2	131.2	137.1	144.5	143.0	137.1	123.9
50°	107.7	106.2	104.7	104.7	104.7	107.7	110.6	101.8	90.0	76.7	69.4
52.5°	84.1	81.1	79.7	79.7	81.1	81.1	72.3	58.9	50.1	45.7	39.8
55°	63.5	60.4	57.5	57.5	56.0	48.6	38.3	33.9	26.5	23.6	20.6
57.5°	45.7	44.2	39.8	36.8	30.9	25.1	20.6	14.7	13.3	10.3	8.8
60°	33.9	30.9	26.5	22.1	17.7	13.3	8.8	7.4	7.4	5.9	5.9
62.5°	25.1	22.1	17.7	13.3	8.8	5.9	5.9	5.9	4.4	4.4	4.4
65°	17.7	14.7	10.3	7.4	4.4	4.4	4.4	4.4	4.4	2.9	2.9
67.5°	11.8	8.8	4.4	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
70°	7.4	4.4	1.5	2.9	1.5	1.5	2.9	2.9	2.9	2.9	1.5
72.5°	2.9	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
75°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
77.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
80°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5
85°	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5
87.5°	0.0	0.0	0.0	0.0	0.0	1.5	1.5	0.0	0.0	0.0	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



TEST NUMBER: P136992

CATALOG NUMBER: LDSQ6A15D010TE ESQ6A15927 6LSQLWW1LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	648.8	648.8	648.8	648.8
2.5°	631.2	631.2	632.6	634.1
5°	613.5	615.0	615.0	615.0
7.5°	589.9	589.9	591.4	591.4
10°	560.3	560.3	561.8	561.8
12.5°	532.3	530.9	532.3	532.3
15°	504.3	502.9	502.9	502.9
17.5°	473.4	471.9	471.9	473.4
20°	442.4	441.0	441.0	441.0
22.5°	411.4	411.4	411.4	411.4
25°	383.4	381.9	381.9	381.9
27.5°	355.4	355.4	355.4	355.4
30°	327.4	327.4	328.9	328.9
32.5°	302.3	302.3	302.3	302.3
35°	272.8	275.7	277.2	278.7
37.5°	246.3	250.7	255.1	256.6
40°	230.1	238.9	244.8	246.3
42.5°	222.7	230.1	233.0	234.5
45°	182.8	175.5	171.0	169.6
47.5°	112.1	101.8	95.9	94.4
50°	64.9	60.4	57.5	56.0
52.5°	35.4	30.9	29.5	29.5
55°	17.7	14.7	13.3	11.8
57.5°	7.4	7.4	7.4	7.4
60°	5.9	5.9	5.9	5.9
62.5°	4.4	4.4	4.4	4.4
65°	2.9	2.9	2.9	2.9
67.5°	2.9	2.9	2.9	2.9
70°	1.5	1.5	1.5	1.5
72.5°	1.5	1.5	1.5	1.5
75°	1.5	1.5	1.5	1.5
77.5°	1.5	1.5	1.5	1.5
80°	1.5	1.5	1.5	1.5
82.5°	1.5	1.5	0.0	1.5
85°	1.5	1.5	1.5	1.5
87.5°	0.0	1.5	0.0	1.5
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)