

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: P136956

Luminaire Tested: **LDSQ6A10D010TE ESQ6A10827 6LSQLWW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136956
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: LDSQ6A10D010TE ESQ6A10827 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: 841.5 lumens
Efficiency: N/A
Efficacy: 60.1 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

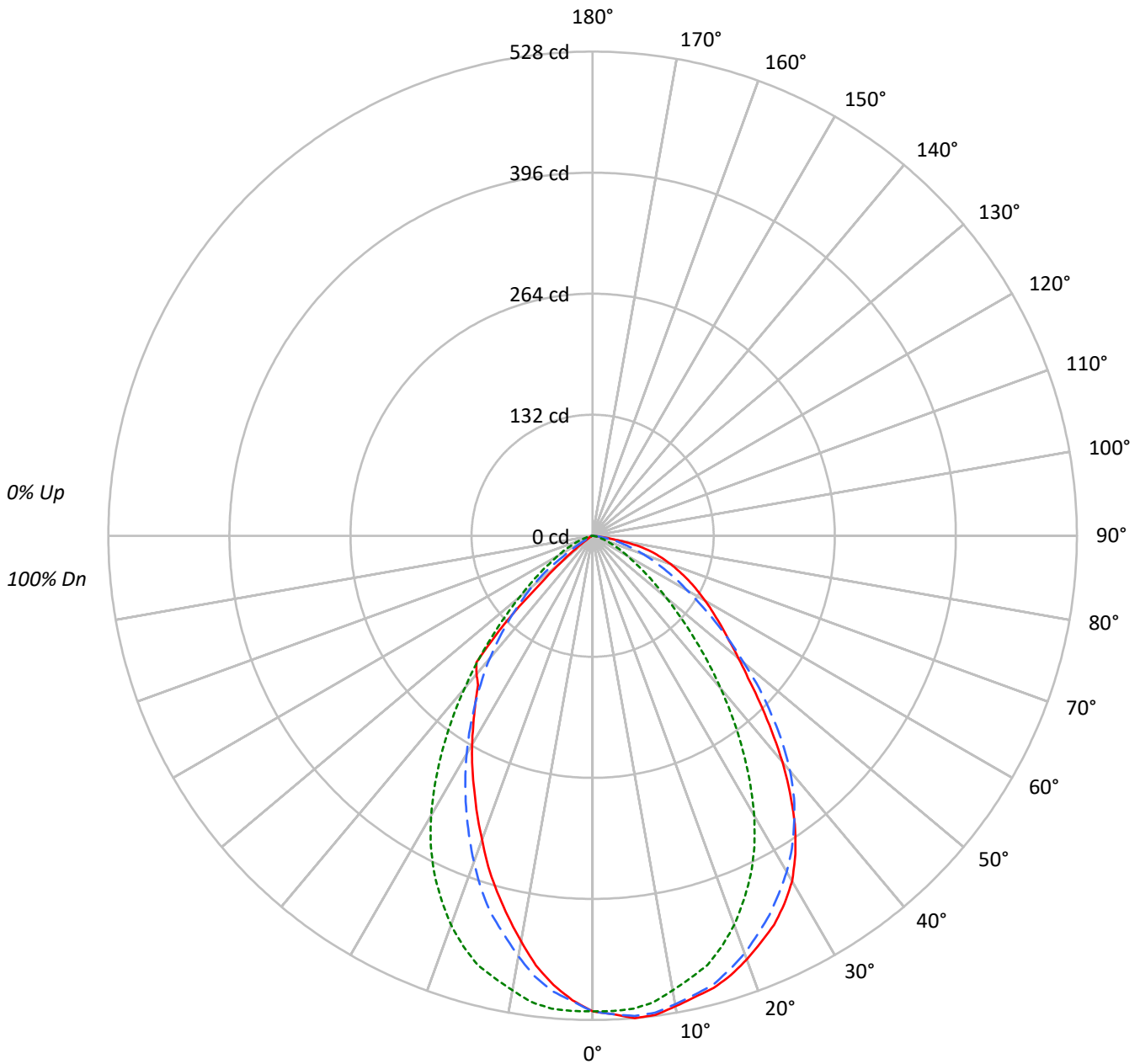
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P136956

CATALOG NUMBER: LDSQ6A10D010TE ESQ6A10827 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°	22333	22333	22333
5°	22825	22366	21243
10°	22778	22004	19635
15°	22751	21596	17919
20°	22520	20687	16147
25°	22233	19378	14504
30°	21627	17520	13070
35°	20199	14996	11711
40°	18087	12191	11067
45°	15716	9401	8257
50°	13899	6946	3001
55°	12829	5134	706
60°	12185	3754	405
65°	11767	2761	245
70°	11430	1926	151
75°	10979	1181	200
80°	6719	595	298
85°	0	0	593



TEST NUMBER: P136956

CATALOG NUMBER: LDSQ6A10D010TE ESQ6A10827 6LSQLWW1LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.4	5.8
10°-20°	131.6	15.6
20°-30°	181.3	21.6
30°-40°	186.3	22.1
40°-50°	145.5	17.3
50°-60°	81.9	9.7
60°-70°	44.6	5.3
70°-80°	19.9	2.4
80°-90°	1.9	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°	361.4	42.9
0°-40°	547.7	65.1
0°-60°	775.2	92.1
0°-90°	841.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	841.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	519	519	519	519	519	
5°	528	526	518	499	492	50
15°	510	507	484	427	402	144
25°	468	456	408	326	305	215
35°	384	383	285	223	223	239
45°	258	276	154	127	136	200
55°	171	163	68	39	9	154
65°	116	86	27	4	2	115
75°	66	34	7	1	1	66
85°	0	1	0	1	1	6
90°	0	0	0	0	0	



TEST NUMBER: P136956

CATALOG NUMBER: LDSQ6A10D010TE ESQ6A10827 6LSQLWW1LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	518.7	518.7	518.7	518.7	518.7	518.7	518.7	518.7	518.7	518.7	518.7
2.5°	522.2	525.7	524.5	526.9	528.1	528.1	528.1	523.4	524.5	522.2	522.2
5°	528.1	530.4	529.3	531.6	532.8	532.8	532.8	528.1	529.3	525.7	525.7
7.5°	526.9	529.3	528.1	530.4	532.8	532.8	531.6	528.1	528.1	524.5	524.5
10°	521.0	523.4	523.4	524.5	526.9	526.9	525.7	522.2	522.2	518.7	518.7
12.5°	515.1	518.7	517.5	519.8	521.0	521.0	521.0	516.3	516.3	512.8	512.8
15°	510.4	513.9	512.8	515.1	516.3	516.3	515.1	511.6	510.4	506.9	506.9
17.5°	502.2	505.7	503.3	505.7	508.0	506.9	505.7	502.2	501.0	496.3	496.3
20°	491.5	493.9	492.7	493.9	496.3	496.3	495.1	490.4	489.2	484.5	483.3
22.5°	479.8	482.1	480.9	482.1	484.5	483.3	482.1	477.4	475.0	470.3	469.1
25°	468.0	470.3	469.1	470.3	472.7	471.5	469.1	464.4	462.1	456.2	455.0
27.5°	452.6	455.0	453.8	456.2	458.5	457.4	455.0	450.3	446.8	439.7	438.5
30°	435.0	437.3	436.1	437.3	439.7	439.7	437.3	433.8	430.2	423.2	419.6
32.5°	411.4	414.9	413.7	417.3	419.6	419.6	419.6	414.9	411.4	404.3	399.6
35°	384.3	387.8	386.6	390.2	393.7	396.1	397.2	394.9	392.5	383.1	377.2
37.5°	353.6	357.2	356.0	360.7	365.4	369.0	371.3	370.1	369.0	360.7	353.6
40°	321.8	324.2	324.2	327.7	334.8	339.5	343.0	343.0	341.8	334.8	328.9
42.5°	288.8	292.3	292.3	297.0	302.9	308.8	311.2	313.6	314.7	306.5	300.6
45°	258.1	260.5	260.5	264.0	271.1	277.0	280.5	282.9	284.1	275.8	269.9
47.5°	229.9	232.2	233.4	238.1	241.6	246.4	249.9	251.1	252.3	246.4	239.3
50°	207.5	208.6	209.8	213.4	215.7	219.2	221.6	222.8	222.8	214.5	208.6
52.5°	187.4	188.6	188.6	192.1	194.5	196.9	196.9	196.9	195.7	188.6	179.2
55°	170.9	172.1	172.1	174.5	175.6	176.8	175.6	173.3	170.9	162.7	153.2
57.5°	155.6	156.8	156.8	158.0	158.0	158.0	155.6	153.2	148.5	139.1	130.8
60°	141.5	142.6	142.6	143.8	143.8	142.6	139.1	134.4	128.5	119.1	110.8
62.5°	128.5	129.7	129.7	129.7	129.7	127.3	122.6	116.7	109.6	102.6	94.3
65°	115.5	116.7	115.5	116.7	115.5	112.0	106.1	100.2	93.1	86.0	79.0
67.5°	102.6	103.7	102.6	102.6	100.2	96.7	90.8	84.9	79.0	71.9	64.8
70°	90.8	90.8	89.6	88.4	84.9	81.3	75.4	70.7	64.8	58.9	53.0
72.5°	77.8	79.0	76.6	74.3	70.7	66.0	61.3	56.6	51.9	46.0	41.3
75°	66.0	66.0	62.5	60.1	56.6	53.0	48.3	43.6	38.9	34.2	30.6
77.5°	49.5	49.5	46.0	44.8	41.3	38.9	34.2	30.6	27.1	24.8	21.2
80°	27.1	27.1	25.9	24.8	23.6	22.4	20.0	18.9	16.5	14.1	11.8
82.5°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	5.9	4.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	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: P136956

CATALOG NUMBER: LDSQ6A10D010TE ESQ6A10827 6LSQLWW1LI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	518.7	518.7	518.7	518.7	518.7	518.7	518.7	518.7	518.7	518.7	518.7
2.5°	521.0	523.4	519.8	523.4	522.2	515.1	522.2	518.7	516.3	518.7	515.1
5°	524.5	525.7	522.2	525.7	523.4	516.3	521.0	517.5	515.1	516.3	511.6
7.5°	523.4	524.5	521.0	523.4	519.8	512.8	517.5	512.8	509.2	509.2	503.3
10°	517.5	518.7	513.9	516.3	512.8	504.5	509.2	503.3	499.8	497.4	491.5
12.5°	511.6	511.6	508.0	509.2	505.7	497.4	499.8	493.9	489.2	486.8	478.6
15°	504.5	504.5	501.0	502.2	497.4	489.2	491.5	484.5	478.6	475.0	465.6
17.5°	493.9	493.9	489.2	490.4	484.5	476.2	478.6	469.1	463.3	457.4	447.9
20°	479.8	478.6	473.9	473.9	468.0	458.5	460.9	451.5	443.2	437.3	426.7
22.5°	465.6	463.3	458.5	457.4	450.3	439.7	440.9	430.2	422.0	414.9	403.1
25°	449.1	445.6	439.7	437.3	430.2	419.6	419.6	407.9	399.6	390.2	378.4
27.5°	432.6	427.9	419.6	416.1	406.7	394.9	393.7	381.9	372.5	363.1	350.1
30°	412.6	406.7	396.1	391.3	380.7	367.8	364.2	352.4	341.8	331.2	320.6
32.5°	390.2	383.1	371.3	364.2	351.3	337.1	333.6	319.4	310.0	299.4	287.6
35°	366.6	357.2	344.2	334.8	320.6	306.5	299.4	285.3	275.8	265.2	255.8
37.5°	341.8	330.1	314.7	304.1	287.6	274.7	265.2	251.1	241.6	232.2	224.0
40°	315.9	301.8	285.3	271.1	254.6	241.6	231.0	216.9	208.6	200.4	193.3
42.5°	287.6	272.3	254.6	239.3	221.6	208.6	196.9	185.1	176.8	168.6	162.7
45°	257.0	241.6	222.8	207.5	189.8	176.8	166.2	154.4	147.3	140.3	135.6
47.5°	225.1	211.0	192.1	176.8	160.3	148.5	137.9	127.3	120.2	115.5	112.0
50°	194.5	180.4	163.8	148.5	133.2	122.6	113.2	103.7	97.8	93.1	89.6
52.5°	166.2	153.2	137.9	124.9	110.8	100.2	91.9	84.9	79.0	74.3	70.7
55°	141.5	129.7	115.5	103.7	91.9	82.5	75.4	68.4	63.7	57.8	54.2
57.5°	119.1	108.4	96.7	86.0	74.3	67.2	61.3	54.2	49.5	46.0	41.3
60°	101.4	91.9	80.2	70.7	61.3	55.4	49.5	43.6	40.1	35.4	31.8
62.5°	84.9	76.6	67.2	57.8	49.5	44.8	40.1	35.4	30.6	27.1	23.6
65°	70.7	62.5	54.2	46.0	40.1	35.4	31.8	27.1	23.6	20.0	16.5
67.5°	57.8	50.7	42.4	36.5	31.8	28.3	24.8	20.0	17.7	14.1	11.8
70°	46.0	40.1	33.0	28.3	24.8	21.2	17.7	15.3	11.8	9.4	7.1
72.5°	35.4	30.6	24.8	21.2	18.9	15.3	13.0	10.6	8.3	7.1	4.7
75°	25.9	21.2	17.7	15.3	13.0	10.6	8.3	7.1	5.9	3.5	2.4
77.5°	17.7	14.1	11.8	9.4	8.3	7.1	4.7	4.7	3.5	2.4	1.2
80°	10.6	7.1	5.9	4.7	3.5	3.5	2.4	2.4	1.2	1.2	0.0
82.5°	3.5	2.4	1.2	1.2	1.2	1.2	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: P136956

CATALOG NUMBER: LDSQ6A10D010TE ESQ6A10827 6LSQLWW1LI

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	518.7	518.7	518.7	518.7	518.7	518.7	518.7	518.7	518.7	518.7	518.7
2.5°	510.4	512.8	510.4	512.8	512.8	508.0	509.2	509.2	505.7	505.7	506.9
5°	505.7	505.7	503.3	504.5	504.5	498.6	498.6	498.6	493.9	492.7	492.7
7.5°	497.4	496.3	491.5	491.5	490.4	484.5	482.1	480.9	476.2	475.0	473.9
10°	484.5	482.1	476.2	475.0	472.7	465.6	462.1	459.7	455.0	452.6	452.6
12.5°	470.3	468.0	460.9	458.5	453.8	445.6	442.0	439.7	432.6	429.1	429.1
15°	456.2	452.6	444.4	439.7	435.0	426.7	422.0	418.5	411.4	407.9	406.7
17.5°	437.3	432.6	424.4	418.5	412.6	404.3	399.6	393.7	387.8	384.3	381.9
20°	414.9	409.0	398.4	393.7	387.8	378.4	372.5	369.0	361.9	358.3	357.2
22.5°	391.3	384.3	373.7	367.8	360.7	352.4	348.9	343.0	337.1	334.8	332.4
25°	365.4	359.5	347.7	341.8	334.8	326.5	323.0	318.3	313.6	312.4	308.8
27.5°	337.1	331.2	321.8	314.7	308.8	300.6	297.0	293.5	288.8	287.6	286.4
30°	307.7	301.8	292.3	286.4	280.5	274.7	271.1	267.6	264.0	264.0	264.0
32.5°	277.0	271.1	264.0	258.1	253.4	248.7	246.4	242.8	240.5	241.6	242.8
35°	245.2	241.6	234.6	231.0	227.5	222.8	221.6	219.2	216.9	218.1	218.1
37.5°	214.5	212.2	207.5	203.9	201.6	198.0	198.0	195.7	193.3	195.7	195.7
40°	185.1	182.7	179.2	178.0	175.6	174.5	173.3	173.3	172.1	174.5	179.2
42.5°	156.8	155.6	153.2	152.1	150.9	149.7	150.9	150.9	153.2	161.5	170.9
45°	130.8	130.8	128.5	128.5	127.3	127.3	128.5	132.0	139.1	148.5	149.7
47.5°	107.3	107.3	104.9	104.9	104.9	104.9	109.6	115.5	114.3	109.6	99.0
50°	86.0	84.9	83.7	83.7	83.7	86.0	88.4	81.3	71.9	61.3	55.4
52.5°	67.2	64.8	63.7	63.7	64.8	64.8	57.8	47.2	40.1	36.5	31.8
55°	50.7	48.3	46.0	46.0	44.8	38.9	30.6	27.1	21.2	18.9	16.5
57.5°	36.5	35.4	31.8	29.5	24.8	20.0	16.5	11.8	10.6	8.3	7.1
60°	27.1	24.8	21.2	17.7	14.1	10.6	7.1	5.9	5.9	4.7	4.7
62.5°	20.0	17.7	14.1	10.6	7.1	4.7	4.7	4.7	3.5	3.5	3.5
65°	14.1	11.8	8.3	5.9	3.5	3.5	3.5	3.5	3.5	2.4	2.4
67.5°	9.4	7.1	3.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
70°	5.9	3.5	1.2	2.4	1.2	1.2	2.4	2.4	2.4	2.4	1.2
72.5°	2.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
75°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
77.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
80°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.2	1.2
85°	0.0	0.0	0.0	0.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2
87.5°	0.0	0.0	0.0	0.0	0.0	1.2	1.2	0.0	0.0	0.0	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



TEST NUMBER: P136956

CATALOG NUMBER: LDSQ6A10D010TE ESQ6A10827 6LSQLWW1LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	518.7	518.7	518.7	518.7
2.5°	504.5	504.5	505.7	506.9
5°	490.4	491.5	491.5	491.5
7.5°	471.5	471.5	472.7	472.7
10°	447.9	447.9	449.1	449.1
12.5°	425.5	424.4	425.5	425.5
15°	403.1	402.0	402.0	402.0
17.5°	378.4	377.2	377.2	378.4
20°	353.6	352.4	352.4	352.4
22.5°	328.9	328.9	328.9	328.9
25°	306.5	305.3	305.3	305.3
27.5°	284.1	284.1	284.1	284.1
30°	261.7	261.7	262.9	262.9
32.5°	241.6	241.6	241.6	241.6
35°	218.1	220.4	221.6	222.8
37.5°	196.9	200.4	203.9	205.1
40°	183.9	191.0	195.7	196.9
42.5°	178.0	183.9	186.2	187.4
45°	146.2	140.3	136.7	135.6
47.5°	89.6	81.3	76.6	75.4
50°	51.9	48.3	46.0	44.8
52.5°	28.3	24.8	23.6	23.6
55°	14.1	11.8	10.6	9.4
57.5°	5.9	5.9	5.9	5.9
60°	4.7	4.7	4.7	4.7
62.5°	3.5	3.5	3.5	3.5
65°	2.4	2.4	2.4	2.4
67.5°	2.4	2.4	2.4	2.4
70°	1.2	1.2	1.2	1.2
72.5°	1.2	1.2	1.2	1.2
75°	1.2	1.2	1.2	1.2
77.5°	1.2	1.2	1.2	1.2
80°	1.2	1.2	1.2	1.2
82.5°	1.2	1.2	0.0	1.2
85°	1.2	1.2	1.2	1.2
87.5°	0.0	1.2	0.0	1.2
90°	0.0	0.0	0.0	0.0



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













(END OF REPORT)