

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: P135886

Luminaire Tested: **LD6A10D010TE ERM6A10935 6LM121H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P135886  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23373)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6A10D010TE ERM6A10935 6LM121H  
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED DOUBLE WALL WASH LUMINAIRE  
SEMI-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: 1067.6 lumens  
Efficiency: N/A  
Efficacy: 76.3 lumens/watt  
Spacing Criteria (0/90/45): 0.96 / 1.06 / 1.01  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

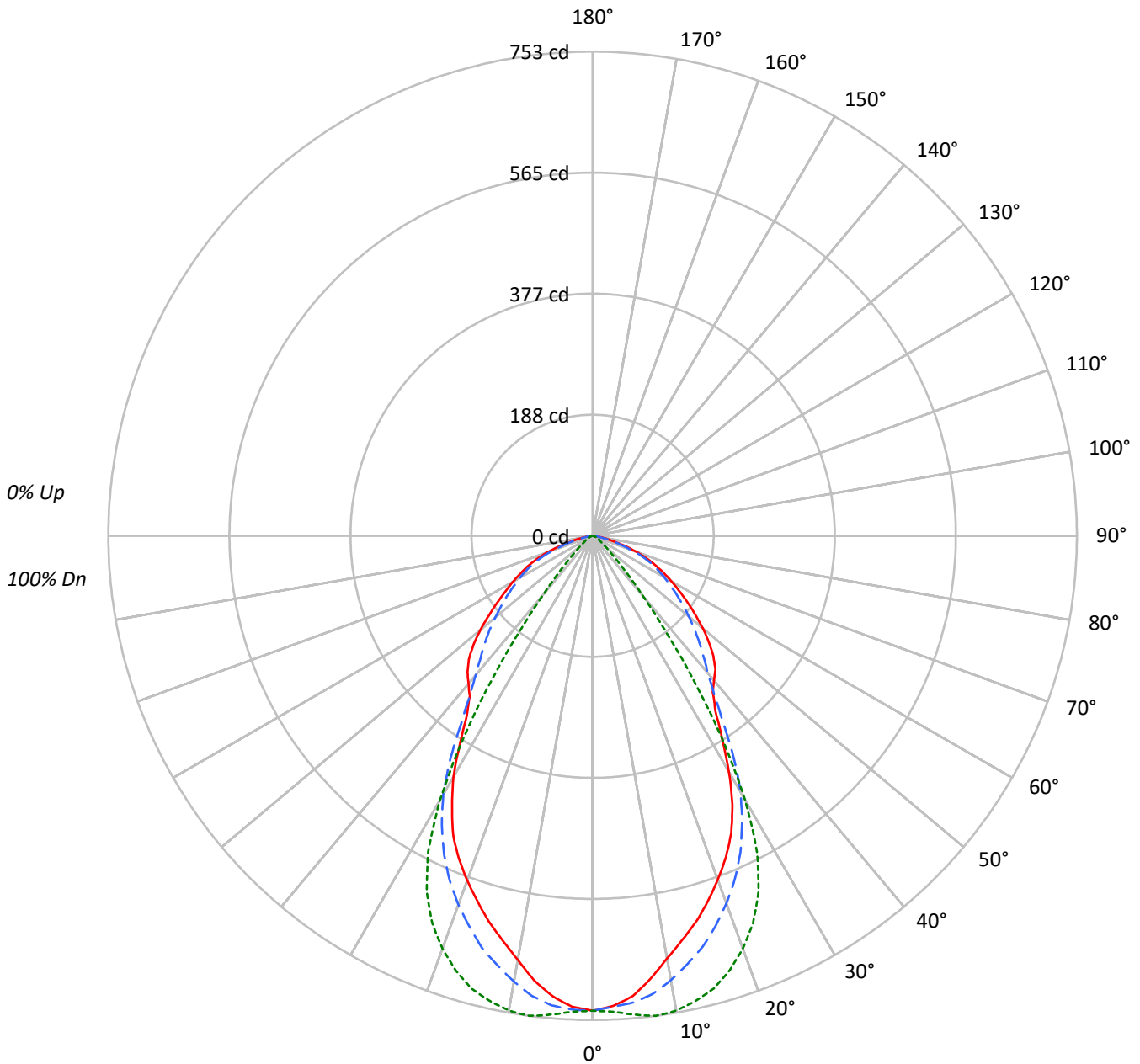
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				
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	100	100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89	89	89	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79	79	79	79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70	70	70	70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62	62	62	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56	56	56	56
6	78	67	60	54	77	66	59	54	65	58	54	63	57	53	62	57	53	51	51	51	51
7	74	62	55	49	72	61	54	49	60	53	49	59	53	49	57	52	48	47	47	47	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43	43	43	43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39	39	39	39
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36	36	36	36

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

	0°	90°	180°
0°	48187	48187	48187
5°	47061	48960	47061
10°	44207	49672	44352
15°	41977	49211	41977
20°	39511	47412	39588
25°	36705	43940	36950
30°	31941	35723	32612
35°	26482	21599	27103
40°	24996	10067	25567
45°	24505	4733	25124
50°	22654	2487	23111
55°	20440	1649	20565
60°	18489	1305	18633
65°	16533	1034	17043
70°	13620	858	14039
75°	8999	555	8999
80°	5034	413	5034
85°	3368	0	2470



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.9	6.5
10°-20°	186.9	17.5
20°-30°	249.9	23.4
30°-40°	206.6	19.4
40°-50°	148.3	13.9
50°-60°	109.0	10.2
60°-70°	70.3	6.6
70°-80°	24.9	2.3
80°-90°	2.9	0.3
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°	505.7	47.4
0°-40°	712.3	66.7
0°-60°	969.5	90.8
0°-90°	1067.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1067.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	739	739	739	739	739	
5°	719	729	748	733	719	67
15°	622	662	729	664	622	174
25°	510	543	610	547	513	232
35°	332	353	271	356	340	214
45°	266	234	51	238	272	203
55°	180	160	14	162	181	161
65°	107	99	7	100	110	105
75°	36	29	2	29	36	40
85°	4	2	0	2	3	5
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°	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6
2.5°	732.0	726.4	730.8	726.4	727.5	732.0	733.1	735.3	736.4	733.1	733.1
5°	718.6	713.0	718.6	714.1	716.3	721.9	723.0	727.5	729.7	728.6	730.8
7.5°	694.0	689.6	695.1	691.8	695.1	703.0	706.3	711.9	716.3	718.6	721.9
10°	667.3	662.8	668.4	665.0	670.6	679.5	682.9	689.6	696.3	701.8	707.4
12.5°	643.8	639.4	642.7	641.6	647.2	655.0	660.6	668.4	676.2	681.8	689.6
15°	621.5	617.1	621.5	619.3	623.8	632.7	638.3	646.1	655.0	661.7	670.6
17.5°	595.9	591.4	594.8	593.6	598.1	605.9	611.5	619.3	628.2	636.0	644.9
20°	569.1	564.6	568.0	565.7	570.2	579.1	583.6	592.5	600.3	608.1	615.9
22.5°	541.2	536.7	541.2	537.9	544.6	550.1	554.6	563.5	570.2	578.0	584.7
25°	509.9	505.5	508.8	506.6	511.1	517.8	521.1	530.1	535.6	543.4	550.1
27.5°	470.8	465.3	471.9	467.5	473.1	478.6	482.0	489.8	496.5	503.2	508.8
30°	424.0	419.5	426.2	422.9	429.6	434.0	438.5	446.3	451.9	459.7	460.8
32.5°	374.9	372.7	378.2	376.0	382.7	387.2	390.5	398.3	402.8	407.3	403.9
35°	332.5	330.3	335.9	334.7	340.3	343.7	347.0	351.5	351.5	352.6	343.7
37.5°	306.9	305.7	310.2	309.1	313.6	316.9	316.9	318.0	315.8	310.2	296.8
40°	293.5	292.4	295.7	294.6	297.9	299.0	297.9	295.7	289.0	277.9	260.0
42.5°	282.3	280.1	282.3	281.2	283.4	284.5	281.2	277.9	268.9	255.5	234.4
45°	265.6	263.4	266.7	264.5	266.7	266.7	263.4	258.9	248.9	234.4	212.0
47.5°	245.5	243.3	246.6	244.4	246.6	246.6	243.3	238.8	228.8	214.3	192.0
50°	223.2	221.0	223.2	222.1	224.3	225.4	221.0	217.6	208.7	195.3	173.0
52.5°	200.9	198.7	200.9	200.9	202.0	202.0	198.7	196.4	188.6	176.3	156.2
55°	179.7	177.4	180.8	179.7	180.8	180.8	177.4	175.2	169.6	159.5	140.6
57.5°	159.5	158.4	160.6	159.5	159.5	159.5	157.3	156.2	151.7	142.8	127.2
60°	141.7	139.4	140.6	140.6	140.6	141.7	139.4	138.3	135.0	128.3	113.8
62.5°	123.8	122.7	123.8	122.7	122.7	123.8	122.7	121.6	119.4	113.8	101.5
65°	107.1	104.9	107.1	106.0	106.0	106.0	104.9	104.9	102.6	99.3	88.1
67.5°	89.2	88.1	89.2	88.1	87.0	87.0	85.9	85.9	84.8	82.5	72.5
70°	71.4	69.2	70.3	68.0	69.2	66.9	66.9	65.8	64.7	63.6	55.8
72.5°	52.4	51.3	51.3	49.1	49.1	48.0	46.9	46.9	45.7	45.7	40.2
75°	35.7	35.7	34.6	32.3	33.5	31.2	31.2	31.2	30.1	29.0	25.7
77.5°	23.4	22.3	22.3	21.2	21.2	19.0	20.1	19.0	19.0	17.8	15.6
80°	13.4	13.4	13.4	12.3	12.3	11.2	11.2	11.2	10.0	10.0	8.9
82.5°	7.8	7.8	7.8	6.7	6.7	6.7	6.7	5.6	5.6	5.6	4.5
85°	4.5	3.3	3.3	3.3	3.3	3.3	3.3	2.2	2.2	2.2	2.2
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	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°	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6
2.5°	737.5	736.4	735.3	739.8	740.9	737.5	737.5	740.9	743.1	737.5	736.4
5°	736.4	737.5	737.5	743.1	746.5	744.2	744.2	747.6	749.8	743.1	740.9
7.5°	730.8	734.2	736.4	744.2	749.8	748.7	749.8	753.1	754.3	747.6	744.2
10°	718.6	723.0	727.5	737.5	744.2	745.3	746.5	749.8	752.0	743.1	738.6
12.5°	701.8	708.5	715.2	726.4	734.2	735.3	738.6	740.9	742.0	734.2	728.6
15°	682.9	691.8	698.5	710.8	719.7	721.9	725.3	728.6	728.6	719.7	714.1
17.5°	659.4	667.3	676.2	688.5	698.5	700.7	705.2	708.5	708.5	699.6	691.8
20°	630.4	639.4	647.2	660.6	671.7	675.1	679.5	682.9	682.9	675.1	665.0
22.5°	600.3	609.3	617.1	629.3	640.5	643.8	647.2	651.6	650.5	643.8	634.9
25°	564.6	572.4	578.0	590.3	599.2	602.6	607.0	610.4	609.3	602.6	594.8
27.5°	521.1	526.7	527.8	535.6	543.4	546.8	550.1	553.5	552.4	546.8	540.1
30°	470.8	469.7	464.1	464.1	467.5	469.7	471.9	474.2	473.1	469.7	465.3
32.5°	407.3	399.4	384.9	377.1	373.8	373.8	373.8	376.0	374.9	373.8	373.8
35°	339.2	322.5	300.2	283.4	274.5	271.2	268.9	271.2	270.0	271.2	275.6
37.5°	283.4	258.9	228.8	206.5	192.0	185.3	180.8	181.9	181.9	185.3	193.1
40°	242.2	210.9	177.4	149.5	132.7	123.8	118.2	118.2	119.4	123.8	133.9
42.5°	210.9	176.3	139.4	112.7	92.6	83.7	78.1	77.0	78.1	83.7	93.7
45°	186.4	149.5	112.7	83.7	66.9	56.9	52.4	51.3	52.4	58.0	66.9
47.5°	165.1	128.3	93.7	64.7	48.0	40.2	35.7	34.6	36.8	41.3	49.1
50°	147.2	111.5	77.0	51.3	36.8	29.0	25.7	24.5	25.7	30.1	36.8
52.5°	130.5	97.0	64.7	40.2	27.9	22.3	19.0	17.8	19.0	22.3	29.0
55°	117.1	85.9	55.8	33.5	22.3	17.8	15.6	14.5	15.6	17.8	23.4
57.5°	104.9	75.9	48.0	27.9	19.0	14.5	12.3	12.3	12.3	14.5	19.0
60°	93.7	66.9	41.3	23.4	15.6	12.3	10.0	10.0	10.0	12.3	15.6
62.5°	83.7	59.1	35.7	20.1	13.4	10.0	8.9	8.9	8.9	10.0	13.4
65°	71.4	50.2	30.1	16.7	11.2	8.9	7.8	6.7	7.8	8.9	11.2
67.5°	59.1	41.3	24.5	13.4	8.9	6.7	5.6	5.6	5.6	6.7	8.9
70°	45.7	32.3	19.0	10.0	6.7	5.6	4.5	4.5	4.5	5.6	6.7
72.5°	31.2	22.3	13.4	7.8	5.6	4.5	3.3	3.3	3.3	4.5	5.6
75°	20.1	14.5	8.9	5.6	3.3	3.3	2.2	2.2	2.2	3.3	3.3
77.5°	12.3	8.9	5.6	3.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2
80°	6.7	5.6	3.3	2.2	2.2	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	3.3	3.3	2.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
85°	1.1	1.1	1.1	1.1	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°	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6
2.5°	736.4	738.6	739.8	735.3	736.4	737.5	730.8	732.0	728.6	735.3	732.0
5°	739.8	740.9	742.0	735.3	734.2	733.1	725.3	724.1	719.7	725.3	721.9
7.5°	740.9	738.6	738.6	728.6	725.3	721.9	711.9	708.5	703.0	705.2	700.7
10°	735.3	730.8	727.5	715.2	709.6	704.1	691.8	687.3	679.5	680.6	675.1
12.5°	723.0	717.5	711.9	698.5	691.8	684.0	671.7	665.0	657.2	657.2	650.5
15°	707.4	700.7	694.0	680.6	671.7	663.9	649.4	642.7	634.9	633.8	628.2
17.5°	685.1	677.3	670.6	655.0	646.1	637.1	623.8	615.9	608.1	608.1	601.4
20°	658.3	649.4	641.6	627.1	618.2	610.4	594.8	588.1	581.4	580.3	574.7
22.5°	627.1	618.2	611.5	598.1	588.1	580.3	566.9	561.3	554.6	553.5	546.8
25°	588.1	580.3	573.6	562.4	553.5	546.8	534.5	527.8	523.4	523.4	517.8
27.5°	535.6	528.9	527.8	518.9	512.2	507.7	497.6	493.1	487.6	487.6	480.9
30°	465.3	466.4	470.8	468.6	466.4	464.1	455.2	454.1	447.4	446.3	438.5
32.5°	379.4	387.2	399.4	406.1	409.5	411.7	409.5	407.3	401.7	400.6	391.6
35°	287.9	303.5	323.6	337.0	348.1	355.9	359.3	359.3	357.1	355.9	348.1
37.5°	208.7	232.1	258.9	281.2	299.0	313.6	320.2	324.7	324.7	324.7	321.4
40°	152.8	180.8	212.0	241.0	263.4	282.3	292.4	300.2	302.4	305.7	303.5
42.5°	113.8	143.9	177.4	210.9	236.6	257.8	271.2	280.1	285.7	289.0	289.0
45°	87.0	117.1	151.7	187.5	214.3	237.7	251.1	261.1	266.7	271.2	271.2
47.5°	66.9	95.9	130.5	166.2	194.2	217.6	231.0	239.9	245.5	250.0	250.0
50°	52.4	79.2	112.7	147.2	175.2	197.5	209.8	218.7	223.2	226.5	227.7
52.5°	42.4	66.9	99.3	132.7	158.4	178.6	188.6	196.4	200.9	203.1	204.2
55°	34.6	58.0	88.1	118.2	142.8	161.8	170.7	176.3	179.7	181.9	181.9
57.5°	29.0	50.2	78.1	107.1	130.5	145.0	152.8	157.3	159.5	161.8	161.8
60°	24.5	43.5	69.2	95.9	117.1	130.5	136.1	139.4	141.7	142.8	142.8
62.5°	21.2	36.8	60.2	84.8	103.7	116.0	120.5	122.7	123.8	123.8	124.9
65°	17.8	31.2	51.3	73.6	89.2	100.4	103.7	104.9	104.9	106.0	107.1
67.5°	13.4	24.5	41.3	60.2	73.6	82.5	85.9	85.9	85.9	85.9	87.0
70°	11.2	19.0	31.2	45.7	56.9	63.6	65.8	65.8	65.8	65.8	66.9
72.5°	7.8	13.4	22.3	32.3	41.3	45.7	45.7	46.9	45.7	45.7	48.0
75°	5.6	8.9	14.5	21.2	25.7	29.0	30.1	30.1	30.1	30.1	31.2
77.5°	3.3	5.6	8.9	12.3	16.7	17.8	19.0	19.0	19.0	19.0	20.1
80°	2.2	3.3	5.6	7.8	8.9	10.0	11.2	11.2	11.2	11.2	11.2
82.5°	1.1	2.2	3.3	3.3	4.5	5.6	5.6	5.6	5.6	5.6	6.7
85°	0.0	1.1	1.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.3
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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CATALOG NUMBER: LD6A10D010TE ERM6A10935 6LM121H

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	738.6	738.6	738.6	738.6
2.5°	725.3	733.1	727.5	733.1
5°	714.1	720.8	714.1	718.6
7.5°	691.8	697.4	690.7	697.4
10°	665.0	670.6	663.9	669.5
12.5°	640.5	644.9	638.3	644.9
15°	618.2	622.6	615.9	621.5
17.5°	592.5	595.9	590.3	595.9
20°	565.7	569.1	564.6	570.2
22.5°	539.0	543.4	537.9	543.4
25°	508.8	512.2	506.6	513.3
27.5°	473.1	475.3	469.7	473.1
30°	429.6	430.7	426.2	432.9
32.5°	383.8	383.8	377.1	383.8
35°	341.4	340.3	335.9	340.3
37.5°	314.7	314.7	311.3	313.6
40°	299.0	300.2	295.7	300.2
42.5°	285.7	287.9	284.5	287.9
45°	268.9	271.2	267.8	272.3
47.5°	247.7	250.0	247.7	251.1
50°	224.3	226.5	224.3	227.7
52.5°	200.9	203.1	200.9	203.1
55°	179.7	180.8	178.6	180.8
57.5°	159.5	160.6	158.4	160.6
60°	140.6	142.8	140.6	142.8
62.5°	123.8	124.9	124.9	126.0
65°	106.0	110.4	109.3	110.4
67.5°	88.1	91.5	91.5	92.6
70°	68.0	70.3	72.5	73.6
72.5°	48.0	51.3	52.4	53.5
75°	31.2	34.6	34.6	35.7
77.5°	20.1	22.3	22.3	22.3
80°	12.3	13.4	12.3	13.4
82.5°	6.7	6.7	6.7	7.8
85°	3.3	3.3	3.3	3.3
87.5°	1.1	1.1	1.1	1.1
90°	0.0	0.0	0.0	0.0



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















(END OF REPORT)