

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: METALUX

Report Number: P257642

Luminaire Tested: **2ST2L2040R**

Issue Date: 3/3/2020



**Test Information**

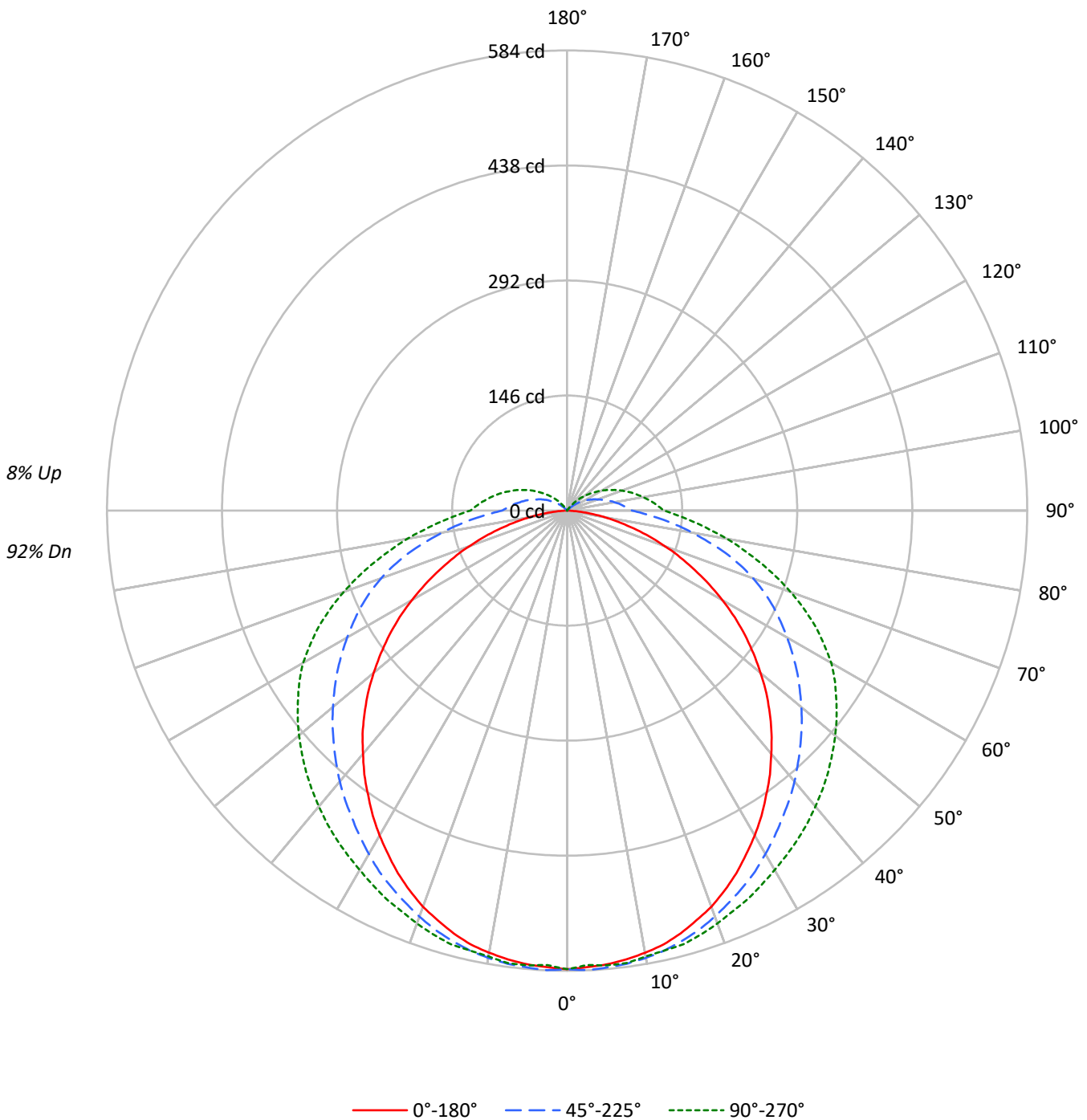
Test Method: LM-41-14  
Report Number: P257642  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1804-713-2)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2ST2L2040R  
Description: 2' LED STRIP  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2153.4 lumens  
Efficiency: N/A  
Efficacy: 109.4 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.35 / 1.43  
Luminous Opening: Rectangular w/ Sides (W: 0.08' x L: 2' x H: 0.08')  
CIE Type: Direct  
  
Input Watts (W): 19.68  
Input Voltage (V): NR  
Input Current (Ain): 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	0
RCR																		
0	117	117	117	117	113	113	113	113	107	107	107	100	100	100	95	95	95	92
1	105	99	94	90	101	96	91	87	90	86	83	85	82	79	80	78	75	73
2	94	85	78	71	91	83	76	70	78	72	67	73	68	64	69	65	61	59
3	86	74	65	58	82	72	64	57	68	61	55	64	58	53	60	55	51	48
4	78	65	56	49	75	63	55	48	60	52	46	56	50	45	53	48	43	41
5	71	58	48	41	69	56	47	41	53	45	40	50	44	38	48	42	37	35
6	66	52	43	36	63	51	42	35	48	40	34	45	39	33	43	37	33	30
7	61	47	38	31	59	46	37	31	43	36	30	41	34	29	39	33	29	27
8	57	43	34	28	55	42	33	28	40	32	27	38	31	26	36	30	26	24
9	53	39	31	25	51	38	30	25	36	29	24	35	28	24	33	27	23	21
10	50	36	28	22	48	35	27	22	34	27	22	32	26	21	31	25	21	19

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

	0°	45°	90°
0°	37603	37603	37603
5°	37364	35461	34543
10°	37110	33469	32041
15°	36760	31568	30059
20°	36242	29724	28108
25°	35518	27996	26429
30°	34685	26345	24911
35°	33759	24774	23650
40°	32842	23399	22476
45°	31894	22041	21408
50°	30691	20769	20371
55°	29291	19549	19345
60°	27443	18306	18309
65°	25121	17110	16904
70°	22392	15694	15213
75°	18839	13857	13347
80°	14387	11585	11500
85°	7533	9366	9560



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	55.2	2.6
10°-20°	158.9	7.4
20°-30°	242.2	11.2
30°-40°	297.3	13.8
40°-50°	321.2	14.9
50°-60°	313.0	14.5
60°-70°	273.0	12.7
70°-80°	202.2	9.4
80°-90°	118.3	5.5
90°-100°	70.0	3.3
100°-110°	49.4	2.3
110°-120°	30.8	1.4
120°-130°	15.9	0.7
130°-140°	5.5	0.3
140°-150°	0.5	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	456.3	21.2
0°-40°	753.6	35.0
0°-60°	1387.8	64.4
0°-90°	1981.3	92.0
90°-120°	150.2	7.0
90°-150°	172.1	8.0
90°-180°	172.0	8.0
0°-180°	2153.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	582	582	582	582	582	
5°	578	585	582	580	579	55
15°	556	562	565	568	570	157
25°	508	515	528	538	544	234
35°	440	451	476	499	510	276
45°	364	379	419	453	469	280
55°	276	300	356	399	417	246
65°	179	221	289	332	348	178
75°	87	146	208	241	253	93
85°	15	70	119	148	160	19
90°	1	38	82	112	123	1
95°	0	30	71	99	111	0
105°	0	16	52	77	86	0
115°	0	5	33	54	62	0
125°	0	0	17	34	39	0
135°	0	0	2	15	20	0
145°	0	0	0	0	3	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
2.5°	580.1	579.2	587.6	582.0	582.9	587.6	583.9	582.0	583.9	582.9	583.9
5°	578.2	576.4	584.8	580.1	581.0	584.8	581.0	580.1	581.0	581.0	582.0
7.5°	574.5	572.6	581.0	576.4	577.3	581.0	577.3	576.4	578.2	577.3	580.1
10°	569.8	567.9	575.4	571.7	572.6	576.4	572.6	572.6	573.6	574.5	576.4
12.5°	564.2	561.4	568.9	566.1	566.1	570.7	567.0	567.0	567.9	568.9	571.7
15°	555.7	552.9	559.5	557.6	557.6	562.3	558.6	559.5	560.4	562.3	565.1
17.5°	545.4	542.6	548.2	547.3	547.3	552.0	548.2	550.1	551.1	552.9	557.6
20°	535.1	532.3	537.0	536.1	537.0	541.7	537.9	539.8	541.7	544.5	548.2
22.5°	522.0	519.2	523.9	523.9	523.9	528.6	525.8	528.6	530.4	533.3	537.9
25°	507.9	506.1	508.9	509.8	510.8	515.4	512.6	515.4	518.3	522.0	527.6
27.5°	492.0	490.1	492.0	494.8	495.8	500.5	497.6	502.3	504.2	508.9	516.4
30°	476.1	474.2	476.1	478.9	480.8	484.5	482.6	487.3	490.1	495.8	503.3
32.5°	459.2	458.3	459.2	463.0	464.8	468.6	467.7	473.3	476.1	482.6	490.1
35°	440.5	439.5	440.5	445.2	448.0	450.8	449.8	456.4	461.1	467.7	476.1
37.5°	422.7	421.7	422.7	428.3	430.2	434.8	433.9	440.5	446.1	453.6	463.0
40°	403.0	403.0	403.0	409.5	412.4	417.0	416.1	424.5	430.2	437.7	448.9
42.5°	384.2	383.3	383.3	389.9	394.6	398.3	398.3	406.7	414.2	422.7	433.9
45°	363.6	363.6	362.7	370.2	374.9	378.6	379.6	388.9	397.4	406.7	418.9
47.5°	343.0	342.1	342.1	350.5	355.2	359.9	360.8	372.1	380.5	390.8	403.9
50°	320.5	320.5	320.5	329.9	335.5	339.3	342.1	353.3	362.7	373.9	388.0
52.5°	298.0	299.0	299.0	308.3	315.8	319.6	323.3	335.5	345.8	357.1	372.1
55°	275.5	276.5	277.4	287.7	295.2	299.9	304.6	316.8	328.9	340.2	356.1
57.5°	252.1	254.0	254.9	266.2	275.5	280.2	284.9	299.0	311.1	323.3	339.3
60°	227.7	230.5	233.4	244.6	254.9	260.5	266.2	280.2	293.3	307.4	322.4
62.5°	203.4	207.1	209.9	223.0	234.3	240.9	247.4	261.5	275.5	289.6	305.5
65°	179.0	182.7	186.5	201.5	215.6	221.2	228.7	243.7	257.7	272.7	288.7
67.5°	155.6	160.3	165.9	180.9	194.9	201.5	209.9	225.9	240.9	254.9	270.8
70°	132.1	136.8	144.3	160.3	175.3	181.8	189.3	208.1	223.0	237.1	251.2
72.5°	109.6	115.3	124.6	141.5	157.4	164.0	171.5	188.4	204.3	217.4	230.5
75°	87.2	93.7	105.0	121.8	138.7	146.2	154.6	169.6	182.7	194.9	208.1
77.5°	66.5	73.1	87.2	105.0	120.9	128.4	135.9	150.9	163.1	173.4	183.7
80°	47.8	54.4	69.4	87.2	103.1	109.6	116.2	129.3	140.6	150.9	161.2
82.5°	30.0	38.4	53.4	70.3	84.3	90.0	96.5	108.7	120.0	129.3	139.6
85°	15.0	24.4	38.4	52.5	64.7	70.3	76.8	88.1	99.3	108.7	119.0
87.5°	4.7	13.1	23.4	36.5	47.8	52.5	58.1	69.4	79.7	89.0	98.4
90°	0.9	4.7	13.1	23.4	33.7	38.4	44.0	54.4	63.7	73.1	82.5
92.5°	0.0	2.8	10.3	19.7	29.1	33.7	39.4	48.7	59.0	67.5	76.8
95°	0.0	0.9	7.5	15.9	25.3	30.0	34.7	44.0	54.4	62.8	71.2
97.5°	0.0	0.0	4.7	13.1	21.6	26.2	30.9	40.3	48.7	58.1	66.5
100°	0.0	0.0	2.8	10.3	18.7	22.5	27.2	35.6	45.0	52.5	60.9
102.5°	0.0	0.0	1.9	7.5	15.0	18.7	23.4	31.9	40.3	47.8	56.2
105°	0.0	0.0	0.9	5.6	12.2	15.9	19.7	28.1	36.5	44.0	51.5
107.5°	0.0	0.0	0.0	2.8	9.4	13.1	16.9	24.4	31.9	39.4	45.9
110°	0.0	0.0	0.0	0.9	6.6	10.3	14.1	20.6	28.1	34.7	41.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	0.0	0.0	0.0	0.0	4.7	7.5	10.3	17.8	24.4	30.9	37.5
115°	0.0	0.0	0.0	0.0	1.9	4.7	7.5	14.1	20.6	27.2	32.8
117.5°	0.0	0.0	0.0	0.0	0.9	2.8	4.7	11.2	16.9	22.5	29.1
120°	0.0	0.0	0.0	0.0	0.0	0.9	2.8	7.5	14.1	18.7	24.4
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	4.7	10.3	15.9	20.6
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	7.5	12.2	16.9
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	3.7	8.4	13.1
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	4.7	9.4
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	5.6
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
0°	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0
2.5°	584.8	583.9	582.9	579.2	580.1	576.4	572.6	575.4	580.1	577.3
5°	582.9	582.0	582.0	579.2	580.1	576.4	572.6	576.4	582.0	579.2
7.5°	581.0	580.1	580.1	578.2	579.2	576.4	572.6	576.4	582.0	579.2
10°	577.3	577.3	577.3	574.5	575.4	572.6	568.9	572.6	577.3	574.5
12.5°	572.6	572.6	573.6	570.7	572.6	568.9	566.1	569.8	575.4	571.7
15°	567.0	567.0	568.9	567.0	567.9	566.1	562.3	567.0	572.6	569.8
17.5°	558.6	560.4	562.3	561.4	562.3	560.4	557.6	561.4	567.9	564.2
20°	550.1	552.9	554.8	553.9	554.8	552.9	551.1	554.8	561.4	557.6
22.5°	539.8	542.6	545.4	545.4	546.4	545.4	543.6	547.3	553.9	550.1
25°	529.5	533.3	537.0	537.0	537.9	537.0	536.1	540.8	547.3	543.6
27.5°	518.3	522.9	526.7	527.6	528.6	528.6	528.6	532.3	538.9	535.1
30°	506.1	510.8	516.4	517.3	519.2	519.2	519.2	523.9	530.4	526.7
32.5°	493.9	499.5	505.1	507.9	508.9	509.8	510.8	515.4	522.0	518.3
35°	479.8	486.4	493.9	495.8	498.6	499.5	501.4	505.1	512.6	509.8
37.5°	466.7	475.1	482.6	486.4	488.3	490.1	493.0	495.8	503.3	500.5
40°	453.6	462.0	470.5	475.1	477.0	479.8	481.7	486.4	493.0	490.1
42.5°	439.5	448.9	458.3	463.0	465.8	467.7	471.4	475.1	481.7	479.8
45°	425.5	435.8	445.2	450.8	452.7	456.4	460.2	463.9	470.5	468.6
47.5°	410.5	421.7	431.1	437.7	440.5	444.2	448.0	451.7	458.3	456.4
50°	394.6	406.7	417.0	423.6	426.4	431.1	435.8	439.5	445.2	444.2
52.5°	380.5	391.7	403.0	410.5	413.3	418.0	422.7	426.4	432.0	431.1
55°	363.6	376.7	388.0	395.5	399.2	403.9	409.5	413.3	418.9	417.0
57.5°	348.6	360.8	373.0	380.5	384.2	388.9	395.5	399.2	403.0	403.0
60°	331.8	344.9	357.1	365.5	368.3	373.9	379.6	382.4	387.1	387.1
62.5°	314.9	328.0	340.2	347.7	350.5	356.1	361.7	363.6	368.3	367.4
65°	298.0	310.2	321.5	328.9	331.8	336.4	342.1	343.9	347.7	347.7
67.5°	279.3	291.5	301.8	308.3	310.2	315.8	320.5	321.5	325.2	325.2
70°	259.6	269.9	279.3	285.8	287.7	292.4	297.1	298.0	301.8	301.8
72.5°	238.0	247.4	255.8	262.4	265.2	269.0	272.7	273.7	276.5	277.4
75°	215.6	224.0	232.4	239.0	240.9	244.6	248.4	249.3	252.1	253.0
77.5°	191.2	200.6	209.0	215.6	217.4	221.2	224.9	225.9	227.7	228.7
80°	168.7	176.2	184.6	190.2	192.1	195.9	200.6	202.4	204.3	206.2
82.5°	147.1	154.6	162.1	167.8	169.6	173.4	177.1	179.0	180.9	181.8
85°	126.5	134.0	140.6	146.2	148.1	151.8	155.6	157.4	159.3	160.3
87.5°	105.9	113.4	120.0	126.5	128.4	132.1	135.9	138.7	138.7	140.6
90°	90.0	96.5	104.0	109.6	111.5	114.3	118.1	120.9	121.8	122.8
92.5°	83.4	90.9	97.5	103.1	105.9	108.7	112.5	114.3	115.3	116.2
95°	78.7	85.3	91.8	97.5	99.3	103.1	105.9	108.7	109.6	110.6
97.5°	73.1	79.7	86.2	91.8	93.7	96.5	100.3	102.2	103.1	104.0
100°	68.4	75.0	80.6	86.2	88.1	90.9	94.7	96.5	97.5	98.4
102.5°	62.8	69.4	75.0	80.6	82.5	85.3	88.1	90.9	91.8	91.8
105°	58.1	63.7	69.4	75.0	76.8	78.7	82.5	84.3	85.3	86.2
107.5°	52.5	59.0	63.7	69.4	71.2	73.1	75.9	78.7	79.7	79.7
110°	47.8	53.4	58.1	62.8	65.6	67.5	70.3	72.2	73.1	74.0





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CATALOG NUMBER: 2ST2L2040R

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°
112.5°	43.1	48.7	53.4	58.1	60.0	61.9	64.7	66.5	67.5	68.4
115°	38.4	44.0	47.8	52.5	54.4	56.2	59.0	60.9	61.9	61.9
117.5°	33.7	38.4	43.1	46.9	48.7	50.6	53.4	55.3	56.2	56.2
120°	30.0	33.7	38.4	42.2	43.1	45.0	47.8	49.7	50.6	50.6
122.5°	25.3	30.0	32.8	36.5	38.4	40.3	42.2	44.0	45.0	45.0
125°	20.6	25.3	28.1	31.9	33.7	34.7	36.5	38.4	39.4	39.4
127.5°	16.9	20.6	24.4	27.2	28.1	30.0	31.9	33.7	33.7	33.7
130°	13.1	16.9	19.7	22.5	23.4	25.3	27.2	28.1	29.1	29.1
132.5°	9.4	12.2	15.0	17.8	19.7	20.6	22.5	23.4	24.4	24.4
135°	5.6	8.4	11.2	14.1	15.0	15.9	17.8	18.7	18.7	19.7
137.5°	1.9	4.7	7.5	9.4	10.3	11.2	13.1	14.1	15.0	15.0
140°	0.0	1.9	3.7	5.6	6.6	7.5	8.4	9.4	10.3	10.3
142.5°	0.0	0.0	0.9	1.9	2.8	3.7	4.7	5.6	5.6	6.6
145°	0.0	0.0	0.0	0.0	0.0	0.9	0.9	1.9	1.9	2.8
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)