

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P21004

Luminaire Tested: **TRR-50-LED-E1-5-XX-2L**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P21004  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TRR-50-LED-E1-5-XX-2L  
Description: TRADITIONARE LED POST TOP FIXTURE - TYPE 5 DISTRIBUTION WITH BI-LEVEL SWITCHING  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1648.5 lumens  
Efficiency: N/A  
Efficacy: 56.5 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.83' x L: 0.83' x H: 1')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B1 - U3 - G2

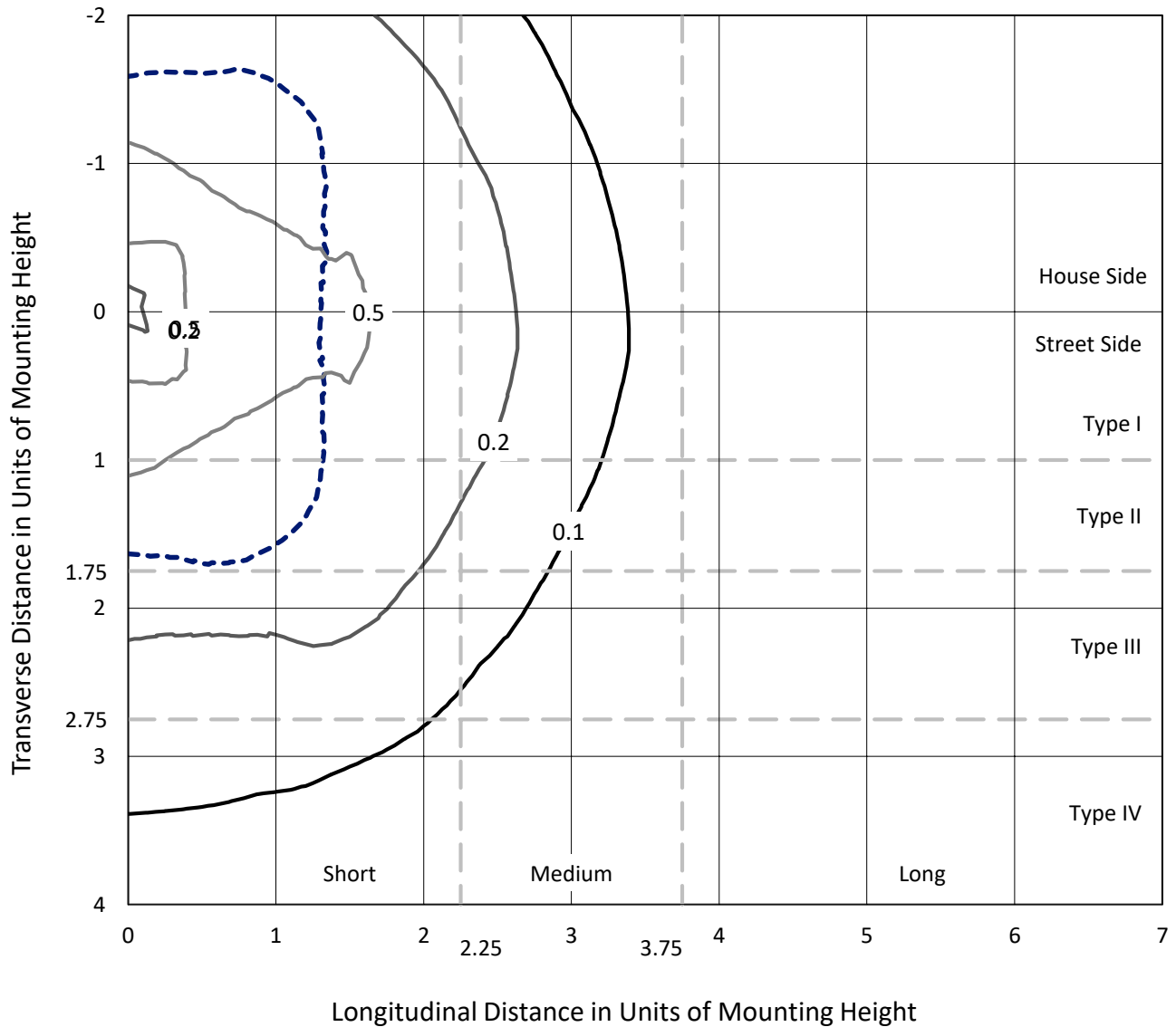
Input Watts (W): 29.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

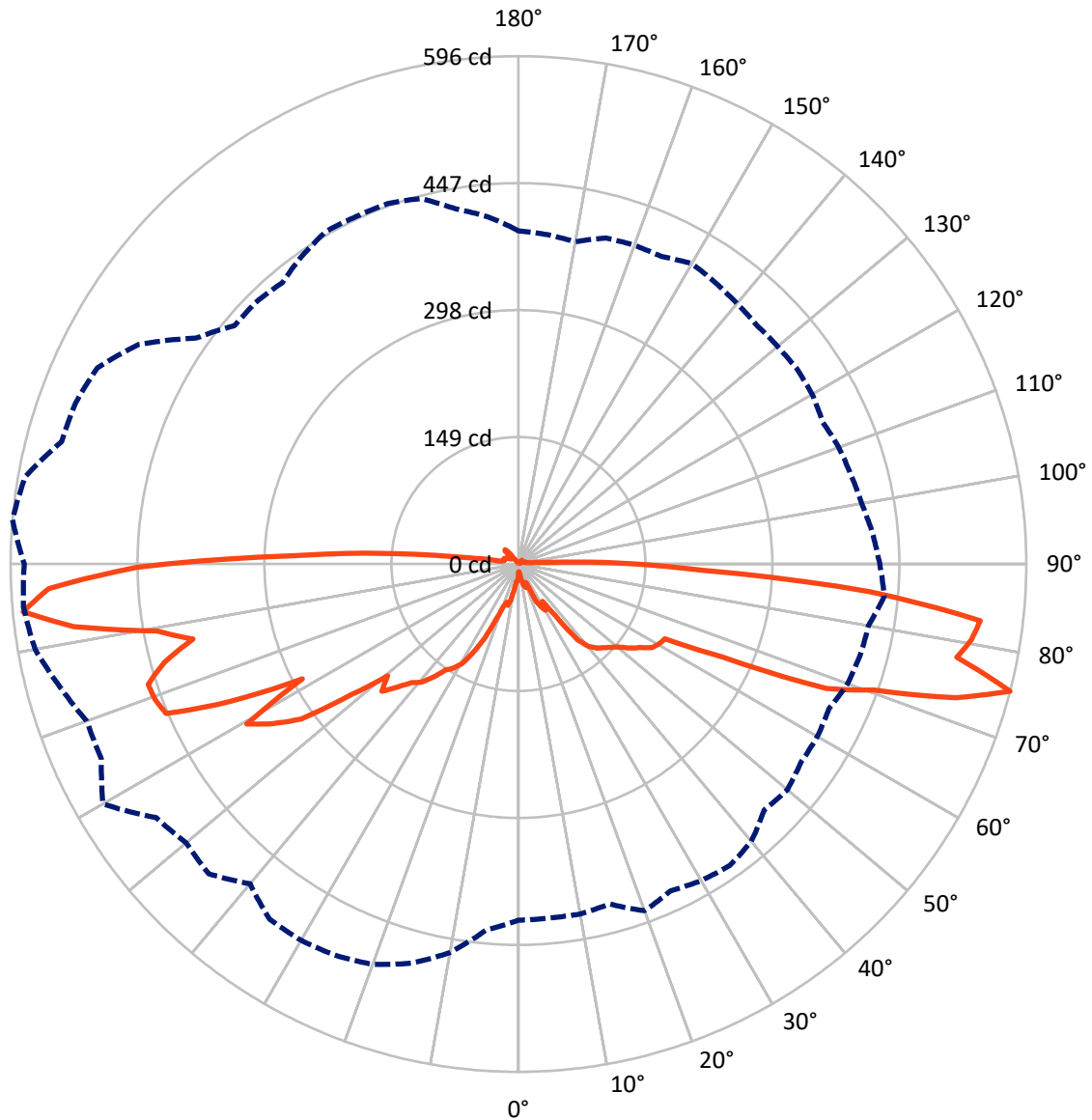
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.9 fc  
 Type IV - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 265-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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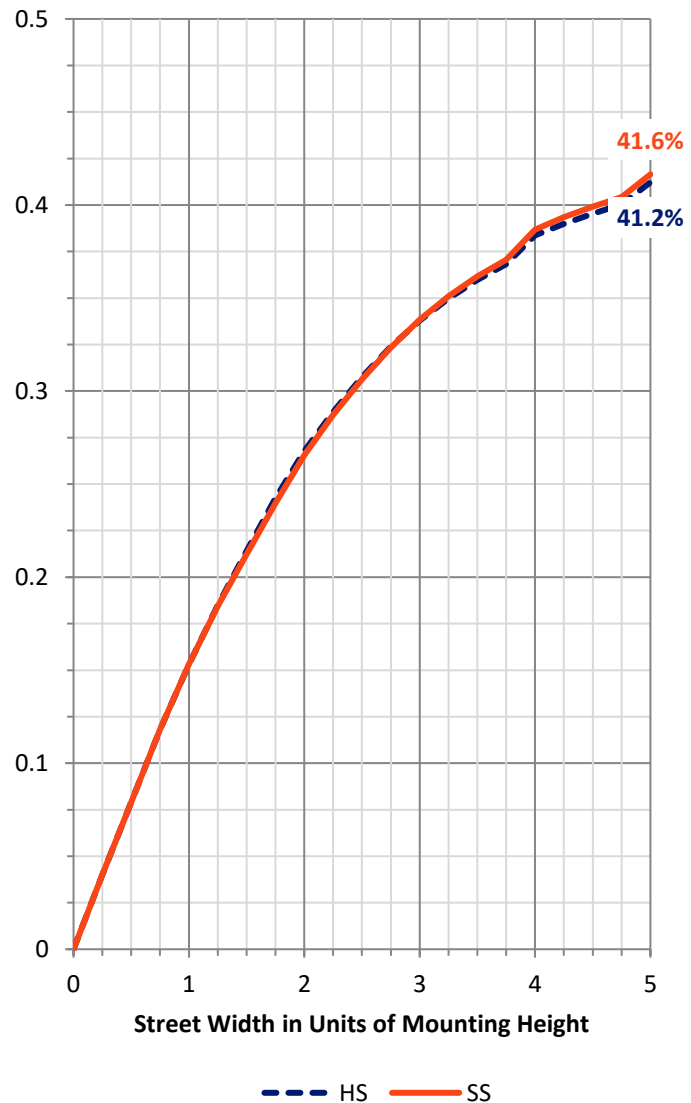
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	770.2	54.3	824.5
	% Fixture	46.7	3.3	50.0
<b>Street Side</b>	Lumens	775.0	48.9	824.0
	% Fixture	47.0	3.0	50.0
<b>Total</b>	Lumens	1545.2	103.3	1648.5
	% Fixture	93.7	6.3	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1.6	0.1
10°-20°	9.6	0.6
20°-30°	28.4	1.7
30°-40°	69.6	4.2
40°-50°	115.0	7.0
50°-60°	175.0	10.6
60°-70°	319.3	19.4
70°-80°	468.7	28.4
80°-90°	357.9	21.7
90°-100°	73.9	4.5
100°-110°	12.6	0.8
110°-120°	7.6	0.5
120°-130°	3.9	0.2
130°-140°	4.4	0.3
140°-150°	0.9	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	1545.2	93.7
0°-180°	1648.5	100.0



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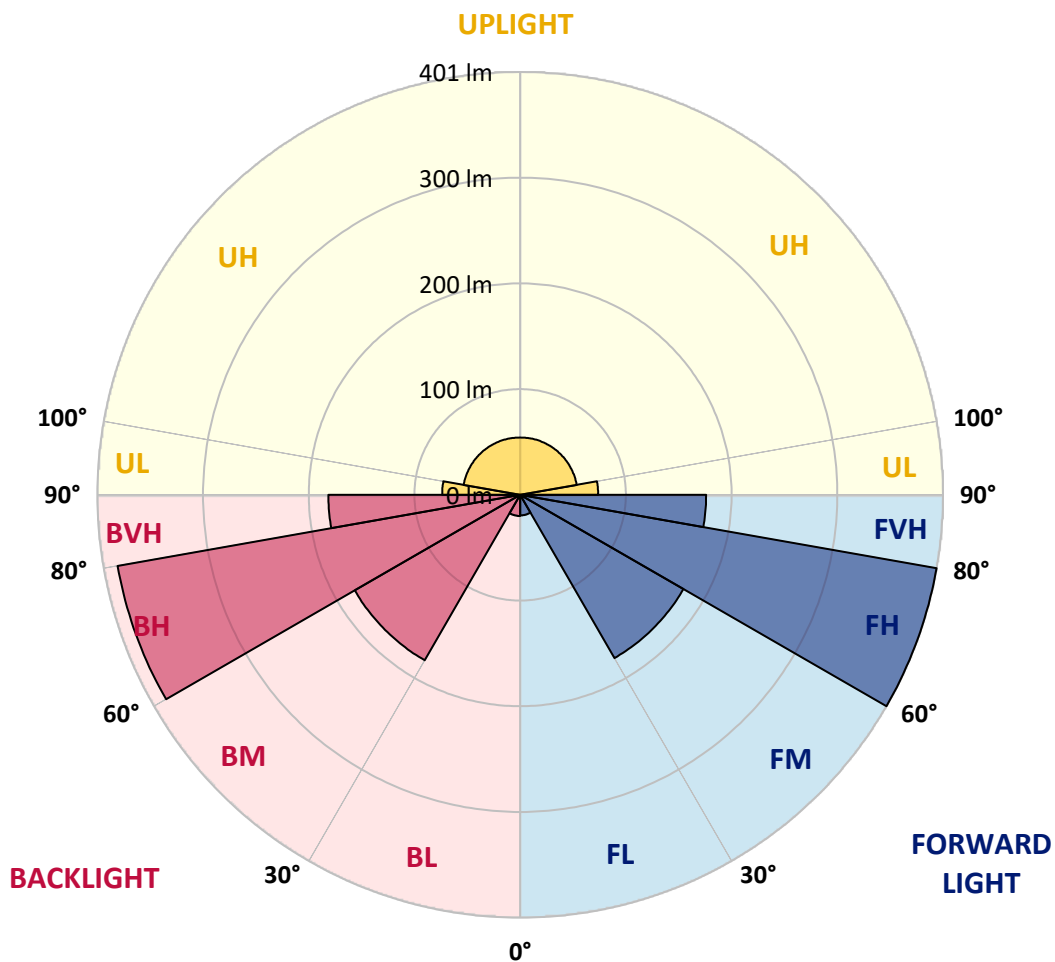
CATALOG NUMBER: TRR-50-LED-E1-5-XX-2L

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	19.5	1.2			
FM	(30°-60°)	178.6	10.8			
FH	(60°-80°)	400.7	24.3			G0/660
FVH	(80°-90°)	176.2	10.7			G2/225
BL	(0°-30°)	20.1	1.2	B0/110		
BM	(30°-60°)	181.0	11.0	B0/220		
BH	(60°-80°)	387.4	23.5	B1/500		G1/500
BVH	(80°-90°)	181.7	11.0			G2/225
UL	(90°-100°)	73.9	4.5		U3/500	
UH	(100°-180°)	54.3	3.3		U3/500	

**BUG Rating: B1-U3-G2**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	11	11	11	11	11	11	11	11	11	11	11
2.5°	22	22	21	19	16	13	11	10	10	9	9
5°	25	24	23	22	21	20	18	16	14	13	12
7.5°	24	24	24	23	23	22	21	21	20	18	17
10°	22	22	21	21	21	21	20	20	20	20	22
12.5°	23	23	23	23	22	22	22	22	24	26	27
15°	36	36	37	37	37	36	35	35	36	34	35
17.5°	47	48	49	49	49	48	48	47	46	46	47
20°	55	57	57	57	55	55	54	51	48	46	46
22.5°	50	51	51	51	50	50	49	49	50	51	51
25°	58	57	56	54	52	50	49	50	51	54	58
27.5°	82	81	79	75	70	65	62	61	63	67	72
30°	108	105	102	96	89	84	81	80	81	82	87
32.5°	127	123	118	112	104	99	96	95	97	100	105
35°	132	128	123	117	112	108	107	108	112	115	118
37.5°	135	132	126	120	116	114	116	119	121	123	126
40°	144	142	136	131	125	125	125	125	126	130	136
42.5°	152	150	143	139	135	135	134	133	135	137	144
45°	158	155	149	146	141	141	140	140	144	144	150
47.5°	163	159	155	150	147	148	145	147	148	151	159
50°	176	170	169	163	158	156	151	154	155	159	166
52.5°	190	184	179	167	160	157	157	162	164	168	175
55°	173	169	167	162	164	167	167	170	172	177	187
57.5°	209	200	200	191	188	177	173	176	185	197	212
60°	318	304	284	249	228	206	202	206	212	232	261
62.5°	325	315	307	289	288	278	275	271	278	293	302
65°	269	266	275	285	306	309	329	351	367	363	354
67.5°	326	322	319	315	334	350	387	417	435	422	414
70°	429	420	419	416	433	443	468	472	472	458	460
72.5°	457	450	450	448	468	471	484	489	471	448	450
75°	418	417	417	413	433	423	429	432	425	408	412
77.5°	391	395	391	378	385	371	374	381	374	380	392
80°	414	405	389	361	351	324	312	323	316	334	360
82.5°	465	444	417	375	342	299	265	254	241	267	308
85°	497	468	424	366	313	261	211	178	157	178	230
87.5°	414	385	342	283	232	183	140	106	88	102	146
90°	255	238	208	170	139	108	84	64	54	61	86
92.5°	152	143	125	101	82	65	51	41	37	38	50
95°	79	75	67	54	45	36	30	28	27	27	30
97.5°	20	20	19	20	20	20	21	21	21	21	22
100°	14	13	13	14	15	16	17	18	17	17	18
102.5°	13	12	12	12	13	14	15	17	16	16	16
105°	14	13	12	12	12	13	14	15	14	14	14
107.5°	13	12	11	11	11	11	12	13	12	12	13
110°	11	10	9	9	9	9	10	11	10	11	11



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	10	9	8	8	8	8	9	9	9	9	10
115°	9	8	7	7	7	7	9	7	7	8	8
117.5°	9	8	7	7	6	6	8	7	6	7	7
120°	9	8	7	6	6	6	8	6	6	6	6
122.5°	8	8	7	6	5	6	6	5	5	5	5
125°	7	7	6	5	4	5	4	4	4	4	5
127.5°	7	6	5	4	3	3	2	3	3	3	4
130°	7	6	5	4	3	2	1	2	2	3	3
132.5°	8	7	6	5	4	2	1	1	1	2	3
135°	17	16	14	12	9	6	4	2	1	0	3
137.5°	15	14	12	10	7	4	2	0	0	0	1
140°	10	10	8	7	5	3	1	0	0	0	0
142.5°	5	4	4	2	1	0	0	0	0	0	0
145°	3	2	2	0	0	0	0	0	0	0	0
147.5°	2	1	0	0	0	0	0	0	0	0	0
150°	1	1	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0





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CATALOG NUMBER: TRR-50-LED-E1-5-XX-2L

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	11	11	11	11	11	11	11	11	11	11	11
2.5°	10	11	13	14	16	17	20	21	21	22	21
5°	12	13	14	15	16	17	20	21	22	22	22
7.5°	16	16	16	17	18	19	21	23	23	24	24
10°	24	25	26	27	28	29	30	31	32	32	32
12.5°	28	31	33	36	39	41	43	43	43	43	41
15°	37	39	41	43	45	48	50	50	50	48	47
17.5°	48	47	46	45	45	46	47	48	48	48	47
20°	46	47	48	49	50	52	53	53	53	53	53
22.5°	53	56	59	62	65	68	70	71	70	69	66
25°	64	70	77	83	88	92	95	96	96	93	90
27.5°	76	83	91	99	107	113	116	118	116	114	108
30°	93	99	107	117	125	131	134	135	134	131	125
32.5°	110	115	121	128	136	140	144	145	142	139	134
35°	123	126	129	135	144	148	151	151	149	148	144
37.5°	131	136	142	147	158	163	166	167	164	162	158
40°	142	147	153	159	171	178	180	179	177	176	170
42.5°	151	155	159	165	174	182	187	187	184	181	175
45°	157	163	170	177	186	197	202	202	199	195	186
47.5°	164	170	177	189	200	213	219	218	216	212	201
50°	173	183	195	200	198	200	202	201	198	196	197
52.5°	179	193	207	225	236	247	249	246	244	241	232
55°	198	218	233	248	270	297	313	317	305	284	262
57.5°	234	270	304	321	330	339	344	341	334	326	324
60°	286	310	323	337	354	366	370	363	358	355	347
62.5°	314	321	303	288	277	281	287	285	277	270	274
65°	343	336	339	350	353	365	375	369	357	347	344
67.5°	409	406	410	426	429	440	449	441	430	423	421
70°	453	446	446	453	449	449	455	445	436	435	437
72.5°	436	429	427	436	440	444	457	449	439	433	428
75°	405	405	402	411	415	417	431	424	417	409	404
77.5°	392	394	392	395	392	385	392	383	382	382	386
80°	381	398	415	429	432	427	431	420	420	422	425
82.5°	356	398	441	477	497	512	527	521	515	501	489
85°	290	355	416	471	515	552	584	585	566	536	511
87.5°	204	270	336	399	459	509	552	563	531	495	456
90°	128	176	234	293	351	409	448	464	435	399	345
92.5°	74	102	137	176	209	246	269	282	267	245	207
95°	39	55	77	102	123	145	159	169	158	142	117
97.5°	23	26	32	41	48	55	59	62	57	55	47
100°	18	18	19	20	21	21	21	21	21	21	21
102.5°	16	17	17	18	18	18	18	18	18	18	19
105°	14	15	16	17	17	17	18	18	18	18	18
107.5°	13	14	15	16	16	17	17	17	17	17	17
110°	12	13	14	15	16	17	17	17	17	17	17



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	11	12	13	14	15	17	18	18	18	18	17
115°	9	10	11	12	13	15	16	17	17	16	15
117.5°	8	8	9	10	12	13	15	15	15	15	13
120°	6	7	8	9	10	11	13	13	13	13	12
122.5°	6	6	7	8	9	11	12	12	12	12	11
125°	5	6	6	7	8	10	11	11	11	11	10
127.5°	4	5	5	7	8	9	10	11	11	10	9
130°	4	4	5	7	8	9	10	11	11	10	9
132.5°	4	5	6	7	9	10	11	12	11	11	10
135°	8	11	13	16	19	21	22	23	22	21	20
137.5°	4	8	12	15	18	21	23	24	23	22	20
140°	1	5	9	12	15	18	19	20	20	19	16
142.5°	0	0	1	4	6	8	9	10	10	9	8
145°	0	0	0	0	1	3	4	4	4	4	3
147.5°	0	0	0	0	0	0	1	1	1	1	1
150°	0	0	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0



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CATALOG NUMBER: TRR-50-LED-E1-5-XX-2L

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	11	11	11	11	11	11	11	11	11	11	11
2.5°	21	20	18	16	14	12	11	9	8	9	10
5°	22	22	21	21	20	18	17	16	16	15	15
7.5°	24	24	23	23	22	21	20	19	18	18	17
10°	31	31	29	27	24	22	21	20	19	19	18
12.5°	39	37	34	32	31	29	27	25	25	24	23
15°	46	45	43	42	40	39	40	39	37	38	37
17.5°	49	50	51	52	52	50	48	49	48	48	48
20°	52	51	49	49	50	49	51	54	55	54	53
22.5°	64	62	58	56	54	52	51	49	48	47	47
25°	85	80	72	66	60	56	54	53	52	53	55
27.5°	101	94	88	81	75	71	66	65	67	69	74
30°	119	111	104	98	90	85	84	82	83	86	91
32.5°	129	125	118	113	107	101	97	96	96	99	103
35°	138	132	128	125	119	113	109	108	108	107	110
37.5°	152	145	137	133	128	122	119	118	117	115	117
40°	160	154	147	140	136	131	128	127	128	126	126
42.5°	167	162	156	147	141	139	136	133	135	134	134
45°	178	173	165	157	146	145	143	139	143	143	146
47.5°	188	180	173	165	157	151	150	148	150	150	154
50°	202	199	185	175	168	156	157	157	158	158	162
52.5°	222	207	191	182	178	165	164	164	165	167	173
55°	246	230	212	198	188	173	173	175	173	172	176
57.5°	324	303	258	232	210	190	184	187	189	194	200
60°	337	324	304	288	258	228	216	217	220	236	258
62.5°	286	305	318	320	307	290	279	278	275	275	276
65°	331	323	328	348	362	361	357	341	319	295	270
67.5°	413	402	403	408	409	412	415	397	378	345	325
70°	440	431	437	447	447	444	448	456	457	422	403
72.5°	426	417	423	434	436	438	445	458	461	440	428
75°	400	394	398	399	397	396	399	403	407	398	398
77.5°	390	390	397	391	387	373	354	355	359	353	362
80°	426	416	405	386	365	334	313	315	320	322	348
82.5°	479	441	404	361	311	278	262	258	286	313	357
85°	482	415	361	291	232	199	189	196	243	294	353
87.5°	408	330	269	200	149	118	113	131	176	232	292
90°	295	227	172	125	90	70	66	84	111	148	194
92.5°	176	132	102	74	54	41	41	50	66	88	116
95°	97	75	56	41	32	29	29	30	36	47	62
97.5°	42	33	27	24	23	22	22	22	22	22	22
100°	21	20	20	19	19	18	18	17	17	15	14
102.5°	19	19	18	18	17	17	16	15	14	13	12
105°	18	18	17	16	16	15	14	13	12	11	10
107.5°	17	17	16	15	14	13	12	11	10	9	8
110°	17	16	15	14	13	12	11	10	9	8	7



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REPORT N  
 CATALOG

**CANDELA DISTRIBUTION (continued):**

**CANDELA**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°	
112.5°	17	16	14	13	12	11	10	9	8	7	7	0°
115°	15	14	13	12	11	9	8	8	7	6	5	2.5°
117.5°	13	12	11	10	9	8	7	7	6	5	4	5°
120°	11	10	9	9	8	7	6	6	5	4	3	7.5°
122.5°	10	9	9	8	7	6	5	5	4	4	3	10°
125°	9	8	8	7	7	6	4	3	3	3	2	12.5°
127.5°	8	7	7	6	6	5	3	2	1	1	1	15°
130°	8	7	6	5	5	4	2	1	0	0	1	17.5°
132.5°	9	7	6	5	4	3	1	0	0	0	1	20°
135°	18	15	12	8	3	1	1	2	3	5	6	22.5°
137.5°	17	13	9	5	1	0	0	0	2	4	7	25°
140°	14	11	7	3	0	0	0	0	1	3	5	27.5°
142.5°	6	3	1	0	0	0	0	0	0	0	0	30°
145°	2	0	0	0	0	0	0	0	0	0	0	32.5°
147.5°	0	0	0	0	0	0	0	0	0	0	0	35°
150°	0	0	0	0	0	0	0	0	0	0	0	37.5°
152.5°	0	0	0	0	0	0	0	0	0	0	0	40°
155°	0	0	0	0	0	0	0	0	0	0	0	42.5°
157.5°	0	0	0	0	0	0	0	0	0	0	0	45°
160°	0	0	0	0	0	0	0	0	0	0	0	47.5°
162.5°	0	0	0	0	0	0	0	0	0	0	0	50°
165°	0	0	0	0	0	0	0	0	0	0	0	52.5°
167.5°	0	0	0	0	0	0	0	0	0	0	0	55°
170°	0	0	0	0	0	0	0	0	0	0	0	57.5°
172.5°	0	0	0	0	0	0	0	0	0	0	0	60°
175°	0	0	0	0	0	0	0	0	0	0	0	62.5°
177.5°	0	0	0	0	0	0	0	0	0	0	0	65°
180°	0	0	0	0	0	0	0	0	0	0	0	67.5°
												70°
												72.5°
												75°
												77.5°
												80°
												82.5°
												85°
												87.5°
												90°
												92.5°
												95°
												97.5°
												100°
												102.5°
												105°
												107.5°
												110°

NUMBER: P21004  
 NUMBER: TRR-50-LED-E1-5-XX-2L

REPORT NUMBER: P  
 CATALOG NUMBER:

**DISTRIBUTION (continued):**

**CANDELA DISTRIBUTION**

165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°	112.5°	165°
11	11	11	11	11	11	11	11	11	11	11	112.5°	7
10	10	10	10	10	9	9	9	9	10	10	115°	5
14	13	13	13	12	12	12	11	11	11	11	117.5°	4
17	16	16	15	14	13	13	13	12	12	12	120°	3
18	18	17	17	16	15	14	13	13	12	12	122.5°	3
24	24	24	23	23	21	20	18	16	15	14	125°	2
38	37	36	36	35	34	32	32	30	28	26	127.5°	1
47	46	46	45	44	44	43	42	41	40	38	130°	1
53	53	51	51	50	50	50	50	49	47	45	132.5°	1
48	48	48	46	45	44	45	44	44	44	44	135°	7
57	59	61	60	58	56	53	51	47	43	40	137.5°	8
77	81	84	85	83	81	76	70	63	57	53	140°	7
95	101	104	108	107	106	102	96	88	81	73	142.5°	1
107	112	117	122	123	122	121	116	110	103	96	145°	0
113	116	122	127	130	130	130	127	124	118	109	147.5°	0
122	126	133	138	141	142	139	135	131	125	116	150°	0
130	134	140	144	148	150	149	145	141	135	124	152.5°	0
136	140	145	149	153	156	154	151	149	143	130	155°	0
148	152	157	161	164	169	166	163	160	152	138	157.5°	0
158	162	167	171	174	178	174	171	169	161	146	160°	0
164	168	173	177	180	187	184	185	181	170	153	162.5°	0
177	181	187	191	196	206	203	202	194	180	163	165°	0
186	196	207	213	215	218	208	204	199	192	175	167.5°	0
207	216	226	234	238	242	241	238	228	208	184	170°	0
278	291	302	317	331	344	344	320	285	249	216	172.5°	0
287	296	305	318	332	348	362	364	358	334	287	175°	0
257	250	251	257	270	291	322	354	373	372	350	177.5°	0
327	326	336	347	362	372	382	382	378	386	388	180°	0
403	393	402	414	432	450	474	482	480	476	450		
424	408	414	423	444	463	487	496	495	489	477		
396	384	388	391	409	423	444	450	450	451	442		
362	357	360	360	377	400	430	438	447	444	427		
357	366	378	389	408	435	456	463	463	447	423		
390	417	445	469	490	513	516	508	483	442	392		
400	441	479	509	527	533	519	490	441	384	305		
346	394	437	465	473	467	436	391	333	272	200		
243	285	326	344	348	337	302	262	210	160	118		
148	171	199	204	209	199	177	150	117	89	63		
79	95	111	115	113	107	92	75	60	42	29		
23	24	26	27	27	27	27	25	22	19	17		
13	12	13	13	14	14	15	15	15	14	13		
10	10	10	11	11	12	12	13	12	12	11		
9	9	9	9	10	10	11	11	11	10	10		
7	7	8	8	8	9	9	10	10	9	9		
7	7	8	8	8	9	10	10	9	9	8		

'21004  
 TRR-50-LED-E1-5-XX-2L

REPORT NUMBER: P21004  
 CATALOG NUMBER: TRR-50-LE

**TION (continued):**

**CANDELA DISTRIBUTION (con**

170°	175°	180°	185°	190°	195°	200°	205°	210°	215°		220°	225°
7	8	8	8	8	9	9	8	8	7	0°	11	11
5	6	7	7	7	7	7	6	6	6	2.5°	10	10
5	5	6	6	6	5	5	5	5	4	5°	11	11
4	4	5	5	4	4	4	4	4	4	7.5°	12	13
3	4	4	4	4	4	4	3	3	3	10°	12	12
3	3	3	4	3	3	3	3	2	2	12.5°	14	14
2	2	3	3	3	3	2	2	2	1	15°	24	21
2	2	3	3	3	3	2	2	2	1	17.5°	35	33
2	3	3	3	3	3	3	2	2	1	20°	43	42
9	10	10	10	11	10	10	9	7	5	22.5°	44	42
10	11	12	12	12	11	9	7	4	2	25°	40	41
8	9	10	10	10	9	8	6	4	1	27.5°	50	49
3	3	4	4	4	3	2	0	0	0	30°	65	57
0	0	0	0	0	0	0	0	0	0	32.5°	84	73
0	0	0	0	0	0	0	0	0	0	35°	100	88
0	0	0	0	0	0	0	0	0	0	37.5°	107	98
0	0	0	0	0	0	0	0	0	0	40°	113	106
0	0	0	0	0	0	0	0	0	0	42.5°	120	112
0	0	0	0	0	0	0	0	0	0	45°	126	117
0	0	0	0	0	0	0	0	0	0	47.5°	134	122
0	0	0	0	0	0	0	0	0	0	50°	139	126
0	0	0	0	0	0	0	0	0	0	52.5°	145	132
0	0	0	0	0	0	0	0	0	0	55°	154	138
0	0	0	0	0	0	0	0	0	0	57.5°	163	146
0	0	0	0	0	0	0	0	0	0	60°	185	158
0	0	0	0	0	0	0	0	0	0	62.5°	239	197
0	0	0	0	0	0	0	0	0	0	65°	324	281
0	0	0	0	0	0	0	0	0	0	67.5°	388	363
										70°	424	413
										72.5°	452	439
										75°	431	435
										77.5°	409	417
										80°	385	372
										82.5°	315	274
										85°	235	173
										87.5°	148	100
										90°	82	54
										92.5°	42	29
										95°	22	20
										97.5°	16	14
										100°	13	12
										102.5°	11	10
										105°	9	9
										107.5°	8	7
										110°	8	7



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CATALOG NUMBER: TRR-50-LED-E1-5-XX

TRR-50-LED-E1-5-XX-2L

Continued):									CANDELA DISTRIBUTION (continued):			
230°	235°	240°	245°	250°	255°	260°	265°	270°	112.5°	220°	225°	230°
11	11	11	11	11	11	11	11	11	112.5°	7	6	5
10	10	10	10	10	9	9	9	8	115°	5	5	4
11	12	12	12	12	11	11	10	9	117.5°	4	4	4
13	13	13	14	14	14	14	14	13	120°	3	3	3
13	14	15	16	17	18	18	18	18	122.5°	3	3	2
15	16	18	20	21	23	24	24	24	125°	2	2	2
20	20	20	23	25	26	27	27	27	127.5°	1	1	1
31	28	28	28	29	28	30	29	29	130°	1	1	0
39	36	33	31	29	26	24	23	22	132.5°	1	0	0
39	35	32	29	28	27	26	25	25	135°	1	0	0
41	43	44	46	49	48	49	48	48	137.5°	0	0	0
49	48	49	52	56	57	58	57	58	140°	0	0	0
53	51	51	54	60	62	64	63	63	142.5°	0	0	0
65	58	53	52	53	51	52	52	52	145°	0	0	0
74	63	58	58	60	64	69	74	75	147.5°	0	0	0
86	79	79	85	93	99	107	113	113	150°	0	0	0
98	95	95	100	108	113	120	127	128	152.5°	0	0	0
103	100	100	108	116	121	128	135	139	155°	0	0	0
108	104	105	113	121	124	131	140	147	157.5°	0	0	0
113	106	107	117	125	128	134	146	152	160°	0	0	0
116	110	111	120	130	134	141	153	160	162.5°	0	0	0
120	113	116	127	136	144	152	164	167	165°	0	0	0
126	119	121	133	144	152	160	173	178	167.5°	0	0	0
133	125	127	139	151	158	169	185	189	170°	0	0	0
140	131	134	148	157	161	173	190	193	172.5°	0	0	0
164	146	143	164	170	170	180	193	195	175°	0	0	0
227	193	174	193	210	227	247	263	263	177.5°	0	0	0
318	282	262	278	303	335	371	390	384	180°	0	0	0
399	389	394	407	411	418	442	443	428				
445	449	485	507	498	494	527	537	524				
435	462	515	545	553	555	588	596	580				
414	443	494	493	491	495	524	526	511				
370	384	423	442	464	491	530	539	529				
256	266	309	367	420	466	520	546	544				
139	138	168	225	282	330	380	414	429				
74	72	86	113	144	173	199	218	233				
42	42	48	60	73	90	105	116	121				
26	25	25	27	28	32	34	35	36				
19	18	18	18	17	17	17	16	16				
14	13	13	13	12	11	11	10	10				
11	11	10	10	9	9	9	9	9				
10	9	9	8	9	9	9	9	9				
8	8	8	8	8	8	8	8	8				
7	7	6	6	7	7	7	6	6				
6	6	5	5	5	6	6	5	5				



REPORT NUMBER: P21004

CATALOG NUMBER: TRR-50-LED-E1-5-XX-2L

1-2L

**CANDELA DISTRIBUTION (continued):**

235°	240°	245°	250°	255°	260°	265°	270°		275°	280°	285°	290°
5	5	5	5	5	5	5	5	0°	11	11	11	11
4	4	4	4	4	4	5	4	2.5°	7	6	6	6
3	3	3	4	4	4	5	4	5°	8	8	8	8
3	3	3	3	3	4	4	4	7.5°	13	12	11	10
2	2	2	3	3	4	4	4	10°	17	17	16	16
2	1	2	2	3	3	3	3	12.5°	23	23	22	21
1	0	1	1	2	2	3	2	15°	26	25	25	23
0	0	0	1	2	2	2	2	17.5°	29	28	27	26
0	0	1	1	2	3	3	3	20°	22	21	21	24
0	1	2	4	5	6	6	6	22.5°	24	25	24	25
0	0	1	3	4	5	6	5	25°	48	46	48	48
0	0	1	2	3	4	4	4	27.5°	58	56	56	56
0	0	0	0	0	1	1	1	30°	63	64	61	59
0	0	0	0	0	0	0	0	32.5°	52	52	49	48
0	0	0	0	0	0	0	0	35°	75	71	64	58
0	0	0	0	0	0	0	0	37.5°	114	109	99	94
0	0	0	0	0	0	0	0	40°	127	121	113	109
0	0	0	0	0	0	0	0	42.5°	137	127	121	117
0	0	0	0	0	0	0	0	45°	142	130	124	122
0	0	0	0	0	0	0	0	47.5°	147	134	128	125
0	0	0	0	0	0	0	0	50°	155	141	134	131
0	0	0	0	0	0	0	0	52.5°	164	151	144	139
0	0	0	0	0	0	0	0	55°	174	161	152	144
0	0	0	0	0	0	0	0	57.5°	185	173	161	149
0	0	0	0	0	0	0	0	60°	189	178	166	153
0	0	0	0	0	0	0	0	62.5°	192	186	177	167
0	0	0	0	0	0	0	0	65°	263	257	243	220
0	0	0	0	0	0	0	0	67.5°	387	379	354	314
								70°	435	441	428	411
								72.5°	530	528	510	495
								75°	583	576	557	539
								77.5°	516	511	495	479
								80°	534	521	498	465
								82.5°	543	510	467	413
								85°	419	378	338	279
								87.5°	223	204	179	145
								90°	117	106	93	73
								92.5°	35	34	32	29
								95°	16	17	17	17
								97.5°	10	10	11	11
								100°	9	9	9	9
								102.5°	8	8	8	9
								105°	8	7	7	8
								107.5°	6	5	5	7
								110°	5	4	4	6





REPORT NUMBER: P21004  
 CATALOG NUMBER: TRR-50-LED-E1-5-XX-2L

**CANDELA DISTRIBUTION (continued):**

295°	300°	305°	310°	315°	320°	325°		275°	280°	285°	290°	295°
11	11	11	11	11	11	11	112.5°	4	4	4	5	3
6	6	7	8	9	10	12	115°	4	3	3	3	2
8	9	9	10	11	12	14	117.5°	4	3	3	3	2
11	11	11	12	13	13	15	120°	4	3	3	2	1
15	14	13	12	12	12	13	122.5°	4	3	3	2	1
19	17	15	14	13	13	13	125°	3	2	2	1	0
21	19	17	16	17	19	21	127.5°	2	1	1	0	0
25	24	24	27	29	31	34	130°	2	1	0	0	0
26	28	31	35	38	40	43	132.5°	2	2	1	0	0
26	28	31	35	37	40	42	135°	6	5	4	3	1
46	43	43	44	41	39	38	137.5°	5	4	3	1	0
54	50	48	49	47	46	48	140°	3	2	1	0	0
57	52	52	52	52	60	70	142.5°	0	0	0	0	0
50	50	55	61	70	81	93	145°	0	0	0	0	0
55	55	60	70	86	98	109	147.5°	0	0	0	0	0
90	81	78	86	99	108	115	150°	0	0	0	0	0
108	97	95	99	108	114	120	152.5°	0	0	0	0	0
114	103	100	105	115	121	128	155°	0	0	0	0	0
120	108	103	109	119	126	137	157.5°	0	0	0	0	0
124	112	106	113	126	133	144	160°	0	0	0	0	0
127	116	111	117	129	139	152	162.5°	0	0	0	0	0
133	120	117	122	135	146	160	165°	0	0	0	0	0
139	127	123	127	140	153	166	167.5°	0	0	0	0	0
144	131	128	132	148	162	175	170°	0	0	0	0	0
150	140	134	141	155	170	196	172.5°	0	0	0	0	0
164	151	144	155	183	214	253	175°	0	0	0	0	0
198	178	185	215	257	308	349	177.5°	0	0	0	0	0
291	280	288	329	372	399	411	180°	0	0	0	0	0
412	427	423	441	462	459	451						
507	532	502	496	504	498	519						
540	563	519	509	514	490	509						
482	520	509	491	498	458	474						
430	433	409	403	415	419	457						
357	305	256	246	266	322	408						
229	171	129	116	145	210	291						
114	86	65	58	73	110	161						
58	43	35	33	37	56	85						
28	24	21	21	22	27	41						
17	16	16	15	15	17	20						
13	11	11	11	12	13	15						
10	9	9	10	10	11	12						
9	8	8	9	9	10	10						
7	7	7	8	8	9	10						
5	6	6	6	7	8	9						
4	4	4	5	6	7	8						



REPORT NUMBER: P21004

CATALOG NUMBER: TRR-50-LED-E1-5-XX-2L

**CANDELA DISTRIBUTION (continued):**

300°	305°	310°	315°	320°	325°		330°	335°	340°	345°	350°	355°
3	3	3	4	5	6	0°	11	11	11	11	11	11
2	2	3	3	4	5	2.5°	14	15	17	19	21	22
2	2	2	3	3	4	5°	15	17	19	21	23	24
1	1	2	2	3	4	7.5°	16	18	19	21	22	23
1	1	1	1	2	3	10°	14	15	17	18	20	21
0	0	0	1	1	2	12.5°	13	14	16	18	20	22
0	0	0	0	0	1	15°	25	27	30	32	34	36
0	0	0	0	0	1	17.5°	37	40	42	44	46	46
0	0	0	0	0	1	20°	46	47	49	51	53	54
0	0	0	0	1	5	22.5°	45	46	47	47	48	48
0	0	0	0	0	2	25°	39	42	46	49	53	56
0	0	0	0	0	0	27.5°	52	56	64	71	77	81
0	0	0	0	0	0	30°	77	84	92	100	105	108
0	0	0	0	0	0	32.5°	101	107	115	123	128	130
0	0	0	0	0	0	35°	120	123	128	134	136	136
0	0	0	0	0	0	37.5°	124	128	131	138	141	139
0	0	0	0	0	0	40°	129	138	143	151	152	148
0	0	0	0	0	0	42.5°	138	147	152	159	160	155
0	0	0	0	0	0	45°	146	154	159	166	166	161
0	0	0	0	0	0	47.5°	155	165	171	175	172	166
0	0	0	0	0	0	50°	163	173	182	190	186	179
0	0	0	0	0	0	52.5°	173	179	184	192	194	192
0	0	0	0	0	0	55°	182	195	196	191	184	175
0	0	0	0	0	0	57.5°	184	199	221	229	223	211
0	0	0	0	0	0	60°	222	240	262	293	311	317
0	0	0	0	0	0	62.5°	305	346	358	362	351	330
0	0	0	0	0	0	65°	360	370	372	354	317	282
0	0	0	0	0	0	67.5°	397	383	370	357	343	329
						70°	471	497	495	482	462	440
						72.5°	539	544	535	523	500	471
						75°	510	507	500	485	463	431
						77.5°	483	486	485	468	442	406
						80°	478	493	495	490	470	433
						82.5°	464	504	519	526	525	490
						85°	373	436	478	509	533	518
						87.5°	225	290	342	388	418	425
						90°	120	162	198	233	252	261
						92.5°	60	86	110	135	146	152
						95°	27	38	50	64	74	79
						97.5°	16	17	19	20	20	20
						100°	13	14	14	15	15	14
						102.5°	12	13	13	14	14	14
						105°	11	12	13	13	14	14
						107.5°	10	11	12	13	13	13
						110°	9	10	11	11	11	11



REPORT NUMBER: P21004  
 CATALOG NUMBER: TRR-50-LED-E1-5-XX-2L

**CANDELA DISTRIBUTION (continued):**

360°		330°	335°	340°	345°	350°	355°	360°
11	112.5°	7	8	9	9	10	10	10
22	115°	6	6	7	8	9	9	9
25	117.5°	5	6	7	7	8	9	9
24	120°	4	5	6	7	8	9	9
22	122.5°	4	4	5	6	7	8	8
23	125°	2	3	4	5	6	7	7
36	127.5°	2	3	4	5	6	7	7
47	130°	1	2	4	5	6	7	7
55	132.5°	2	3	4	6	7	8	8
50	135°	7	10	12	15	16	17	17
58	137.5°	5	7	10	12	14	15	15
82	140°	2	4	6	8	9	10	10
108	142.5°	0	0	2	3	4	5	5
127	145°	0	0	0	1	2	3	3
132	147.5°	0	0	0	0	1	1	2
135	150°	0	0	0	0	0	1	1
144	152.5°	0	0	0	0	0	0	0
152	155°	0	0	0	0	0	0	0
158	157.5°	0	0	0	0	0	0	0
163	160°	0	0	0	0	0	0	0
176	162.5°	0	0	0	0	0	0	0
190	165°	0	0	0	0	0	0	0
173	167.5°	0	0	0	0	0	0	0
209	170°	0	0	0	0	0	0	0
318	172.5°	0	0	0	0	0	0	0
325	175°	0	0	0	0	0	0	0
269	177.5°	0	0	0	0	0	0	0
326	180°	0	0	0	0	0	0	0
429								
457								
418								
391								
414								
465								
497								
414								
255								
152								
79								
20								
14								
13								
14								
13								
11								

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Cooper Lighting Solutions Photometric Lab  
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Scaled Data Report



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