

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: FAIL-SAFE

Report Number: 10850.0

Luminaire Tested: **TRE15-C-226CT**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: 10850.0
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: TRE15-C-226CT
Description: FAIL-SAFE COMPACT FLUOR TRIPLE LAMP 15"DIA WALL MNT LUMINAIRE
WHITE REFL w/INTERNAL RADIAL RIB LENS w/BLACK EYELID FACE
Light Source: 2/26W 1800 LUMENS
WATTS=59
CF26DT/E/IN/835
Ballast/Driver: 2 ENERGY SAVINGS BLST #ES-1-CFH-42-32-26-UNV-D

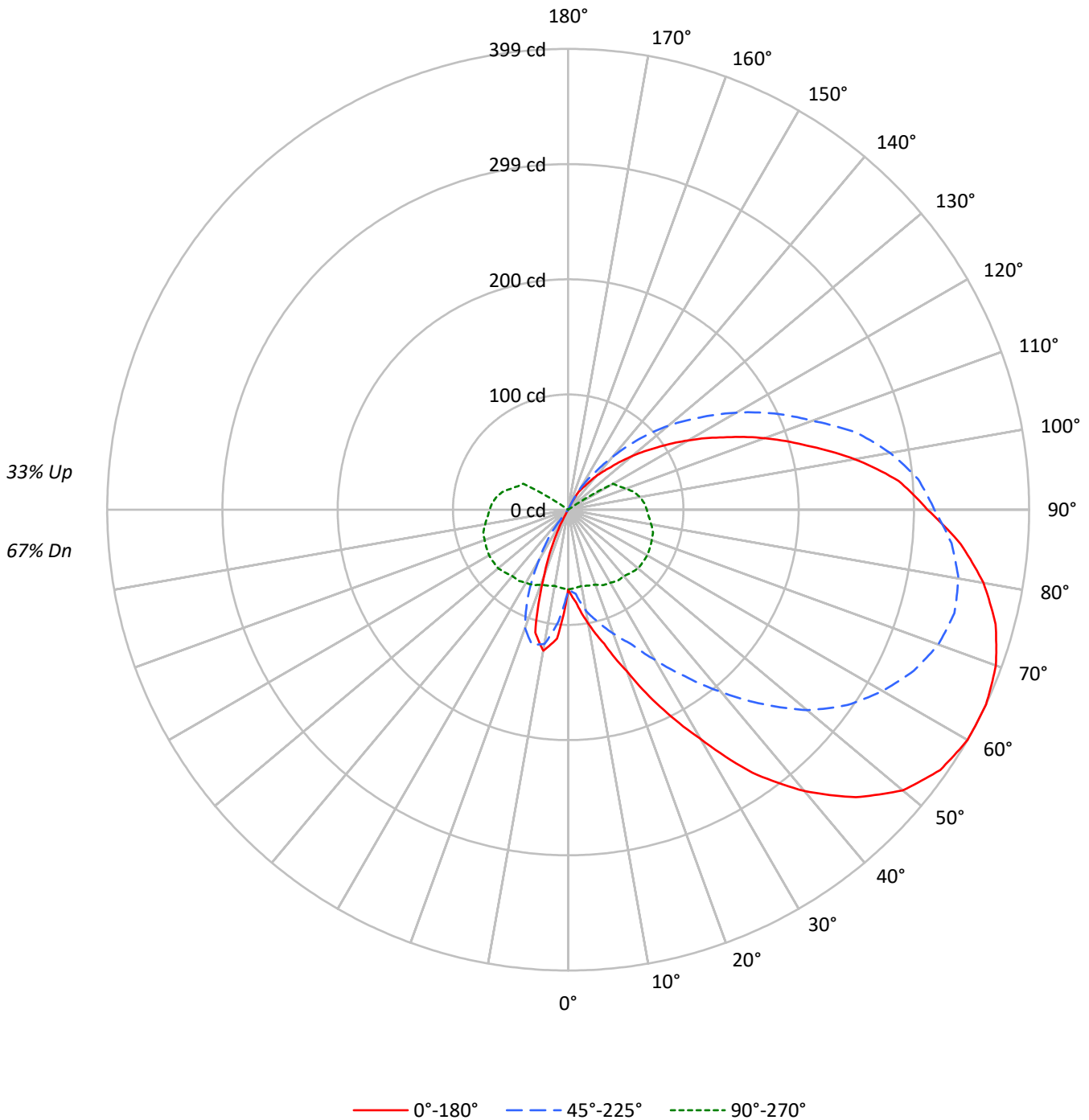
Summary

Lumens per Lamp: 1800 (2 lamps)
Luminaire Lumens: 1250.0 lumens
Efficiency: 34.7%
Efficacy: 21.2 lumens/watt
Spacing Criteria (0/90/45): 2.96 / 1.65 / 2.65
Luminous Opening: Rectangular w/ Sides (W: 1.02' x L: 0.23' x H: 0.52')
CIE Type: Semi-Direct

Input Watts (W): 59
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: 10850.0
CATALOG NUMBER: TRE15-C-226CT

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	39	39	39	39	36	36	36	36	32	32	32	28	28	28	25	25	25	23
1	33	31	28	26	31	29	27	25	25	23	22	22	20	19	19	18	17	15
2	29	26	22	20	27	24	21	19	21	18	16	18	16	14	15	14	12	11
3	26	22	18	16	24	20	17	15	18	15	13	15	13	11	13	11	10	8
4	24	19	15	13	22	18	14	12	15	13	10	13	11	9	11	9	8	7
5	22	16	13	10	20	15	12	10	13	11	9	11	9	7	10	8	6	5
6	20	15	11	9	18	14	11	8	12	9	7	10	8	6	9	7	5	4
7	18	13	10	7	17	12	9	7	11	8	6	9	7	5	8	6	5	4
8	17	12	9	6	16	11	8	6	10	7	5	8	6	5	7	5	4	3
9	16	11	8	6	14	10	7	5	9	6	5	8	6	4	6	5	4	3
10	15	10	7	5	14	9	7	5	8	6	4	7	5	4	6	4	3	2

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3177	3177	3177
5°	3122	3008	4317
10°	3336	2874	4137
15°	3553	2851	3257
20°	3993	2851	1635
25°	4634	2954	665
30°	5262	2998	0
35°	6025	3105	0
40°	6569	3156	0
45°	6997	3319	0
50°	7295	3518	0
55°	7423	3668	0
60°	7436	3861	0
65°	7393	4057	0
70°	7314	4315	0
75°	7178	4654	0
80°	6960	4970	0
85°	6670	5412	0



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	8.3	0.7	0.2	0°	69	69	69	69	69	
10°-20°	28.7	2.3	0.8	5°	81	73	68	97	112	8
20°-30°	46.7	3.7	1.3	15°	120	101	68	121	110	35
30°-40°	69.1	5.5	1.9	25°	188	128	72	82	27	88
40°-50°	98.9	7.9	2.7	35°	278	176	75	28	0	174
50°-60°	128.3	10.3	3.6	45°	352	238	77	0	0	272
60°-70°	149.6	12.0	4.2	55°	393	295	79	0	0	351
70°-80°	157.7	12.6	4.4	65°	399	330	78	0	0	395
80°-90°	152.8	12.2	4.2	75°	383	346	76	0	0	403
90°-100°	137.3	11.0	3.8	85°	341	333	70	0	0	283
100°-110°	111.0	8.9	3.1	90°	311	317	68	0	0	171
110°-120°	79.3	6.3	2.2	95°	287	304	66	0	0	225
120°-130°	47.8	3.8	1.3	105°	214	258	59	0	0	228
130°-140°	24.2	1.9	0.7	115°	148	197	48	0	0	148
140°-150°	9.0	0.7	0.2	125°	94	139	0	0	0	86
150°-160°	1.3	0.1	0.0	135°	52	86	0	0	0	42
160°-170°	0.0	0.0	0.0	145°	25	37	0	0	0	17
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	2
0°-30°	83.7	6.7	2.3	165°	0	0	0	0	0	0
0°-40°	152.8	12.2	4.2	175°	0	0	0	0	0	0
0°-60°	380.0	30.4	10.6	180°	0	0	0	0	0	0
0°-90°	840.1	67.2	23.3							
90°-120°	327.6	26.2	9.1							
90°-150°	408.6	32.7	11.4							
90°-180°	410.0	32.8	11.4							
0°-180°	1250.0	100.0	34.7							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	69	69	69	69	69	69	69	69	69
5°	81	78	73	66	68	80	97	108	112
10°	100	97	89	73	67	96	118	124	124
15°	120	114	101	81	68	108	121	115	110
20°	149	135	114	89	69	113	109	81	61
25°	188	166	128	95	72	113	82	36	27
30°	229	200	150	102	73	109	51	17	0
35°	278	244	176	110	75	103	28	0	0
40°	318	291	206	117	75	95	0	0	0
45°	352	321	238	124	77	84	0	0	0
50°	378	351	270	135	79	72	0	0	0
55°	393	372	295	147	79	57	0	0	0
60°	399	383	314	161	79	48	0	0	0
65°	399	386	330	176	78	39	0	0	0
70°	394	384	341	190	77	32	0	0	0
75°	383	377	346	200	76	0	0	0	0
80°	365	363	343	206	73	0	0	0	0
85°	341	341	333	211	70	0	0	0	0
90°	311	312	317	212	68	0	0	0	0
95°	287	291	304	211	66	0	0	0	0
100°	252	256	283	204	63	0	0	0	0
105°	214	224	258	194	59	0	0	0	0
110°	181	192	225	178	53	0	0	0	0
115°	148	160	197	156	48	0	0	0	0
120°	120	134	168	136	45	0	0	0	0
125°	94	112	139	115	0	0	0	0	0
130°	72	90	113	92	0	0	0	0	0
135°	52	66	86	68	0	0	0	0	0
140°	38	46	59	46	0	0	0	0	0
145°	25	29	37	29	0	0	0	0	0
150°	17	18	22	18	0	0	0	0	0
155°	0	0	0	9	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0

(END OF REPORT)