

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: 10219.0

Luminaire Tested: **CFA T5**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: 10219.0
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: CFA T5
Description: 1/28W T5 LAMP 4'DIR/INDIRECT PENDANT MNT LUMINAIRE
WHITE REFLECTOR w/LINEAR PRISMATIC LENS
Light Source: -
LAMP CODE : FP28T5/835
Ballast/Driver: MAGNETEK BALLAST #BT5-128/120 WATTS=36

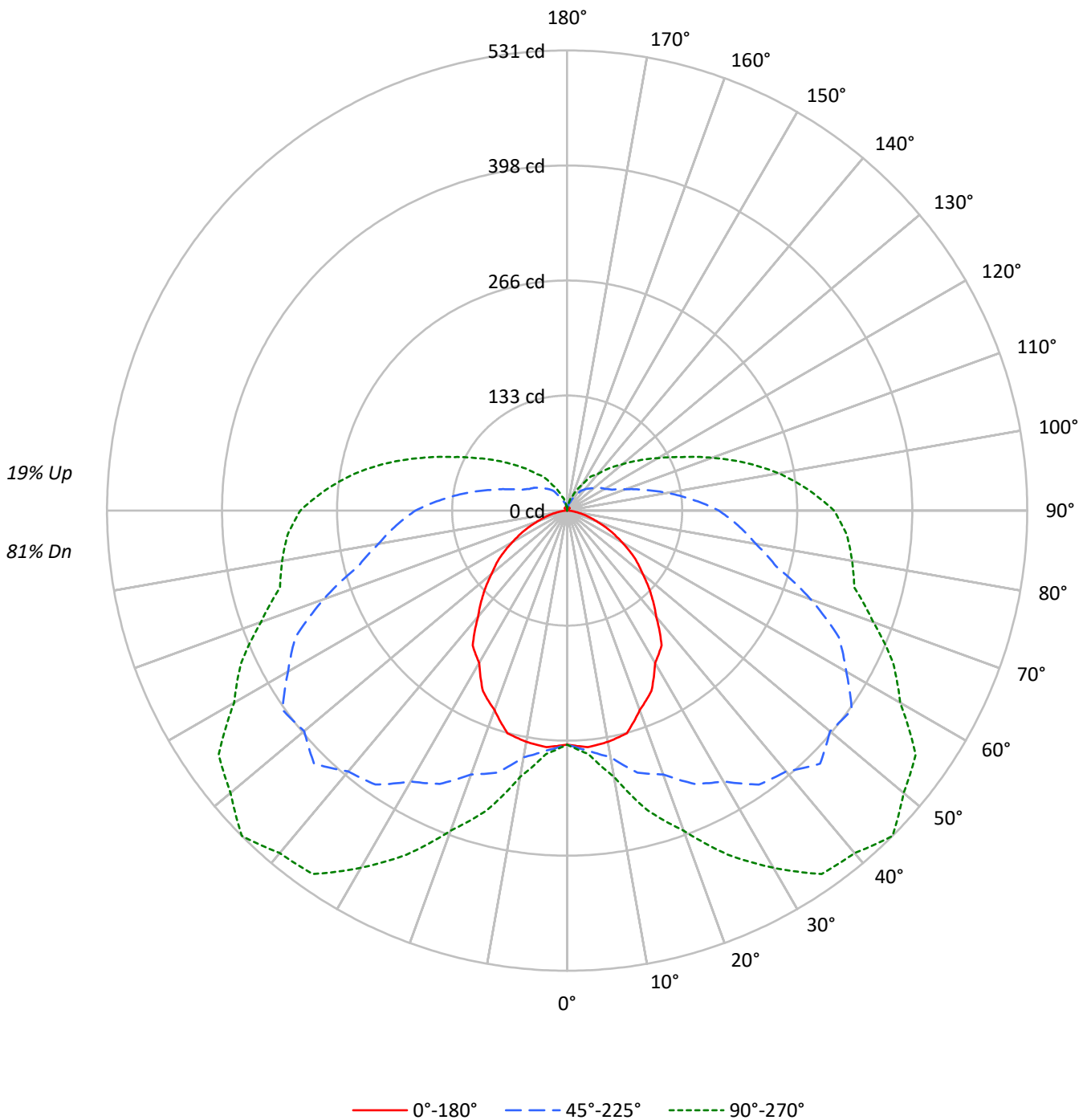
Summary

Lumens per Lamp: 2900 (1 lamp)
Luminaire Lumens: 2233.1 lumens
Efficiency: 77.0%
Efficacy: 62.0 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 2.38 / 2.13
Luminous Opening: Rectangular w/ Sides (W: 0.12' x L: 3.96' x H: 0.14')
CIE Type: Semi-Direct

Input Watts (W): 36
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	88	88	88	88	84	84	84	84	77	77	77	71	71	71	65	65	65	62
1	77	72	68	64	73	69	65	61	63	60	57	57	55	52	52	50	48	46
2	69	61	55	49	65	58	52	48	53	48	44	48	44	41	44	41	38	35
3	62	52	45	39	59	50	43	38	46	40	35	41	37	33	38	34	31	28
4	56	46	38	32	53	44	37	31	40	34	29	36	31	27	33	29	25	23
5	51	40	33	27	48	38	31	26	35	29	24	32	27	23	29	25	21	19
6	47	36	28	23	44	34	27	22	31	25	21	28	23	19	26	22	18	16
7	43	32	25	20	41	31	24	19	28	22	18	26	21	17	23	19	16	14
8	40	29	22	17	38	28	21	17	25	20	16	23	18	15	21	17	14	12
9	37	26	20	15	35	25	19	15	23	18	14	21	16	13	20	15	12	11
10	35	24	18	13	33	23	17	13	21	16	12	20	15	12	18	14	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5874	5874	5874
5°	5966	5680	5627
10°	5951	5606	5790
15°	5937	5821	6254
20°	5603	5830	6531
25°	5435	6110	6993
30°	5001	6234	7365
35°	4929	6607	7743
40°	4418	6720	7688
45°	4076	7108	7855
50°	3708	6913	7503
55°	3436	7157	7325
60°	2999	6846	6730
65°	2590	6623	6443
70°	2094	6010	6029
75°	1715	5334	5731
80°	1155	5064	5873
85°	718	4940	6061



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	26.9	1.2	0.9	0°	270	270	270	270	270	
10°-20°	87.9	3.9	3.0	5°	274	275	278	280	282	26
20°-30°	156.8	7.0	5.4	15°	266	279	313	345	358	74
30°-40°	228.6	10.2	7.9	25°	230	267	348	413	438	105
40°-50°	283.8	12.7	9.8	35°	190	259	386	481	512	116
50°-60°	304.8	13.7	10.5	45°	137	238	413	506	531	106
60°-70°	284.7	12.8	9.8	55°	95	215	401	473	491	84
70°-80°	236.6	10.6	8.2	65°	54	183	346	395	415	54
80°-90°	198.3	8.9	6.8	75°	23	132	250	317	343	25
90°-100°	154.9	6.9	5.3	85°	4	74	198	291	324	5
100°-110°	106.3	4.8	3.7	90°	1	56	175	272	308	1
110°-120°	66.3	3.0	2.3	95°	0	40	145	242	279	0
120°-130°	43.3	1.9	1.5	105°	0	26	92	176	213	0
130°-140°	27.8	1.2	1.0	115°	1	16	57	114	146	1
140°-150°	16.2	0.7	0.6	125°	2	14	46	81	101	2
150°-160°	7.0	0.3	0.2	135°	4	13	36	58	69	3
160°-170°	2.4	0.1	0.1	145°	3	11	28	42	48	2
170°-180°	0.4	0.0	0.0	155°	4	6	16	23	26	2
0°-30°	271.6	12.2	9.4	165°	5	6	9	12	14	1
0°-40°	500.2	22.4	17.2	175°	4	4	4	4	4	0
0°-60°	1088.8	48.8	37.5	180°	0	0	0	0	0	
0°-90°	1808.5	81.0	62.4							
90°-120°	327.5	14.7	11.3							
90°-150°	414.8	18.6	14.3							
90°-180°	425.0	19.0	14.7							
0°-180°	2233.1	100.0	77.0							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	270	270	270	270	270
5°	274	275	278	280	282
10°	271	275	289	305	312
15°	266	279	313	345	358
20°	245	268	324	373	393
25°	230	267	348	413	438
30°	203	256	361	444	476
35°	190	259	386	481	512
40°	160	244	393	490	516
45°	137	238	413	506	531
50°	114	226	396	486	507
55°	95	215	401	473	491
60°	73	199	372	429	444
65°	54	183	346	395	415
70°	36	160	299	354	376
75°	23	132	250	317	343
80°	11	101	221	303	334
85°	4	74	198	291	324
90°	1	56	175	272	308
95°	0	40	145	242	279
100°	0	31	117	209	248
105°	0	26	92	176	213
110°	0	20	72	143	178
115°	1	16	57	114	146
120°	1	16	50	94	121
125°	2	14	46	81	101
130°	2	13	40	69	83
135°	4	13	36	58	69
140°	3	11	32	48	55
145°	3	11	28	42	48
150°	3	8	20	31	34
155°	4	6	16	23	26
160°	4	5	10	16	17
165°	5	6	9	12	14
170°	4	4	5	5	6
175°	4	4	4	4	4
180°	0	0	0	0	0

(END OF REPORT)