

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: BALLABS TEST NO. 9746.0

Luminaire Tested: **CFA-132-120-CLR-EL81**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: BALLABS TEST NO. 9746.0
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: CFA-132-120-CLR-EL81
Description: 1/32W T8 LAMP 4'CLEANROOM TEARDROP CEILING MNT LUMINAIRE
Light Source: -
F32T8/735/RS
Ballast/Driver: MOTOROLA BALLAST #M1-RN-T8-1LL-D-120

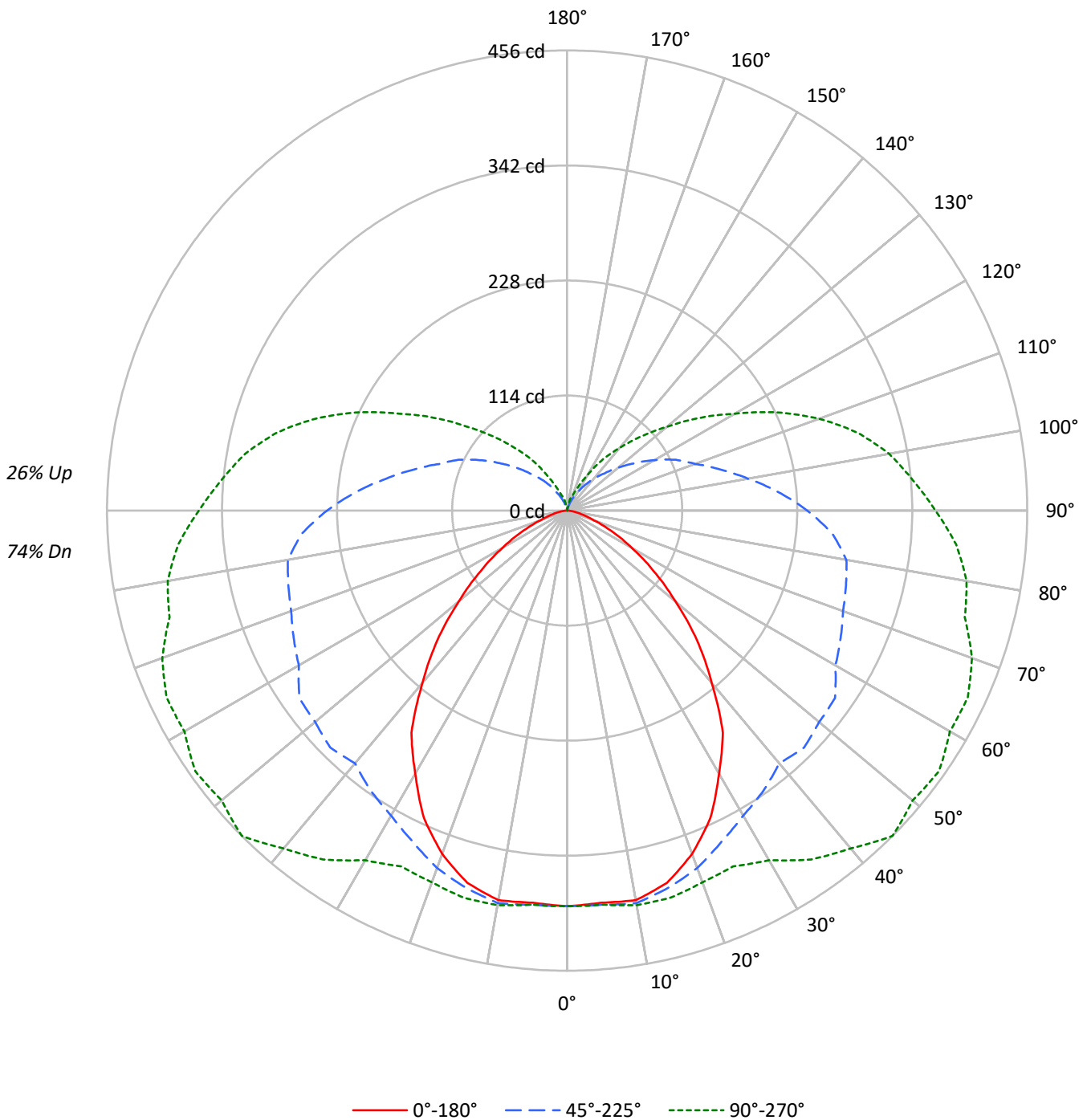
Summary

Lumens per Lamp: 2850 (1 lamp)
Luminaire Lumens: 2458.9 lumens
Efficiency: 86.3%
Efficacy: 82.0 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.68 / 1.6
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 3.99' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 30
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									
RC	80					70					50					30					10				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0				
RCR																									
0	97	97	97	97	93	93	93	93	84	84	84	75	75	75	68	68	68	64							
1	85	79	74	70	80	75	71	67	67	64	60	60	57	55	54	51	49	46							
2	76	67	60	54	71	64	57	52	57	52	47	51	46	43	45	42	39	35							
3	68	58	50	43	64	55	47	42	49	43	38	44	39	35	39	35	31	28							
4	62	51	42	36	58	48	40	34	43	37	31	38	33	29	34	30	26	23							
5	57	45	36	30	53	42	35	29	38	32	27	34	29	24	30	26	22	20							
6	52	40	32	26	49	38	30	25	34	28	23	31	25	21	27	23	19	17							
7	48	36	28	22	45	34	27	22	31	25	20	28	22	18	25	20	17	15							
8	45	33	25	20	42	31	24	19	28	22	18	25	20	16	23	18	15	13							
9	42	30	22	18	39	28	22	17	26	20	16	23	18	14	21	16	13	11							
10	39	27	20	16	37	26	20	15	24	18	14	21	16	13	19	15	12	10							

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6332	6332	6332
5°	6290	5797	5620
10°	6360	5424	5152
15°	6283	4996	4739
20°	6084	4625	4362
25°	5819	4261	4083
30°	5419	3977	4002
35°	5082	3772	4063
40°	4468	3581	4085
45°	3913	3607	4172
50°	3274	3540	4035
55°	2714	3544	4039
60°	2157	3408	3939
65°	1651	3396	3976
70°	1128	3410	3944
75°	809	3489	3866
80°	549	3603	3941
85°	324	3596	3961



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	37.5	1.5	1.3	0°	392	392	392	392	392	
10°-20°	109.5	4.5	3.8	5°	390	390	392	392	392	37
20°-30°	167.5	6.8	5.9	15°	382	384	387	394	397	107
30°-40°	214.7	8.7	7.5	25°	336	342	362	382	389	154
40°-50°	252.2	10.3	8.9	35°	269	294	339	395	422	166
50°-60°	269.0	10.9	9.4	45°	182	240	332	428	456	140
60°-70°	271.1	11.0	9.5	55°	105	190	324	417	450	95
70°-80°	263.4	10.7	9.2	65°	49	147	299	407	438	49
80°-90°	243.8	9.9	8.6	75°	16	114	286	380	408	18
90°-100°	207.4	8.4	7.3	85°	3	81	264	357	387	4
100°-110°	164.5	6.7	5.8	90°	0	71	238	334	365	0
110°-120°	116.6	4.7	4.1	95°	0	67	210	311	344	0
120°-130°	73.4	3.0	2.6	105°	0	59	157	258	298	0
130°-140°	41.0	1.7	1.4	115°	0	41	119	195	230	0
140°-150°	19.7	0.8	0.7	125°	0	26	82	137	160	0
150°-160°	6.3	0.3	0.2	135°	0	18	52	87	104	0
160°-170°	1.2	0.0	0.0	145°	0	11	31	52	62	0
170°-180°	0.0	0.0	0.0	155°	0	0	14	23	26	0
0°-30°	314.6	12.8	11.0	165°	0	0	0	11	13	0
0°-40°	529.2	21.5	18.6	175°	0	0	0	0	0	0
0°-60°	1050.5	42.7	36.9	180°	0	0	0	0	0	0
0°-90°	1828.8	74.4	64.2							
90°-120°	488.6	19.9	17.1							
90°-150°	622.7	25.3	21.8							
90°-180°	630.0	25.6	22.1							
0°-180°	2458.9	100.0	86.3							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	392	392	392	392	392
5°	390	390	392	392	392
10°	392	394	395	395	397
15°	382	384	387	394	397
20°	362	366	377	387	392
25°	336	342	362	382	389
30°	301	316	349	382	400
35°	269	294	339	395	422
40°	223	263	327	408	437
45°	182	240	332	428	456
50°	140	211	326	418	447
55°	105	190	324	417	450
60°	74	167	307	405	438
65°	49	147	299	407	438
70°	28	129	291	397	427
75°	16	114	286	380	408
80°	8	96	281	374	402
85°	3	81	264	357	387
90°	0	71	238	334	365
95°	0	67	210	311	344
100°	0	64	182	288	324
105°	0	59	157	258	298
110°	0	48	135	228	266
115°	0	41	119	195	230
120°	0	34	100	163	192
125°	0	26	82	137	160
130°	0	21	66	110	129
135°	0	18	52	87	104
140°	0	13	41	69	81
145°	0	11	31	52	62
150°	0	8	21	34	41
155°	0	0	14	23	26
160°	0	0	8	13	16
165°	0	0	0	11	13
170°	0	0	0	0	0
175°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)