

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. 8565.0

Luminaire Tested: **FWSCR-232-120-EB81**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: BALLABS TEST NO. 8565.0
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FWSCR-232-120-EB81
Description: 2/32W T8 4'SURFACE MNT LUMINAIRE w/WHITE BODY REFL=93%
Light Source: -
F32T8/735/RS
Ballast/Driver: LM-32D120 WATTS=57

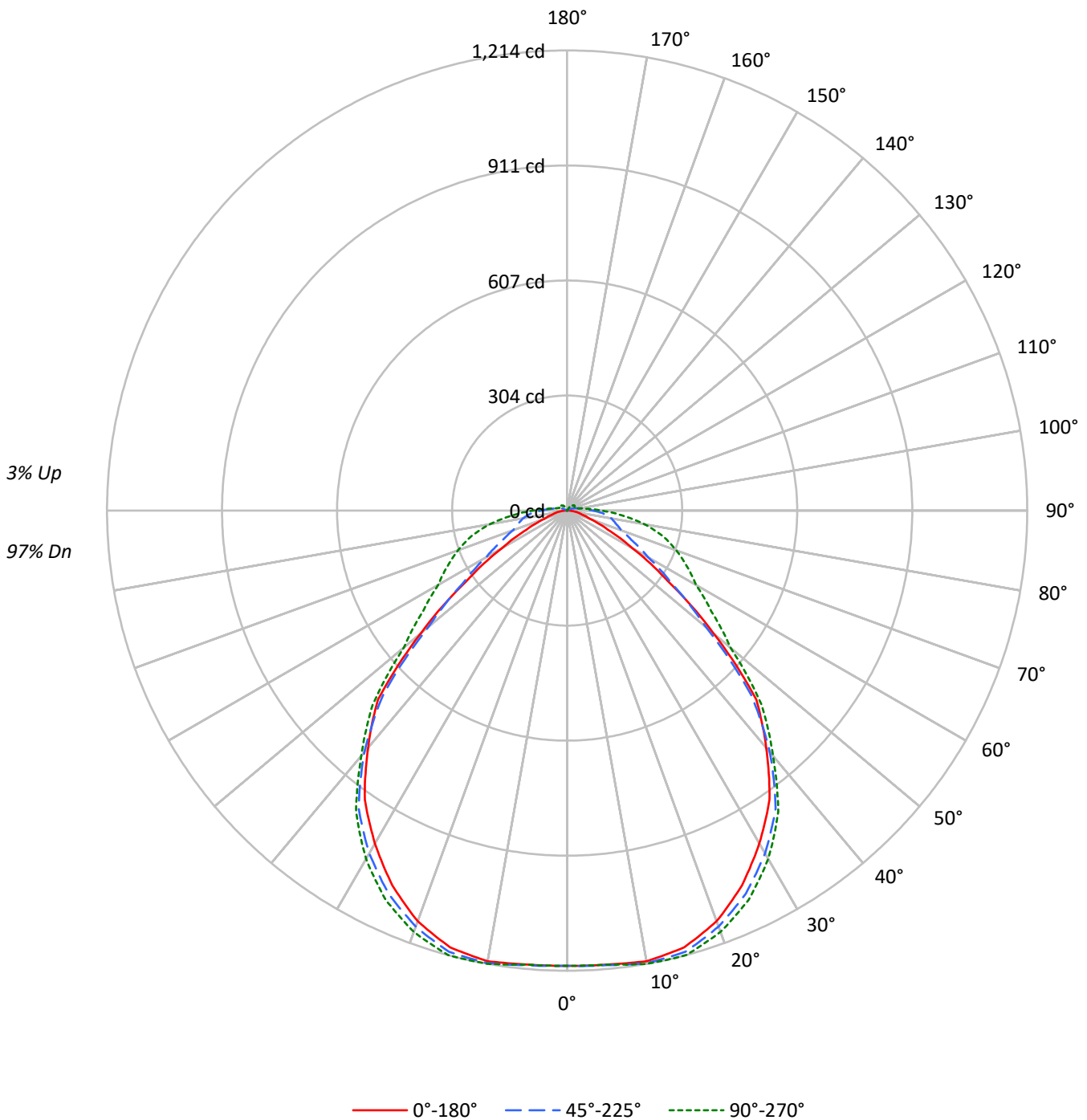
Summary

Lumens per Lamp: 2850 (2 lamps)
Luminaire Lumens: 2958.4 lumens
Efficiency: 51.9%
Efficacy: 51.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 0.75' x L: 3.96' x H: 0.12')
CIE Type: Direct

Input Watts (W): 57
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	61	61	61	61	60	60	60	60	57	57	57	54	54	54	52	52	52	51
1	56	54	52	50	55	53	51	49	50	49	47	48	47	46	46	45	44	43
2	52	48	44	42	50	47	44	41	45	42	40	43	41	39	41	39	38	37
3	48	43	39	35	46	42	38	35	40	37	34	38	36	34	37	35	33	32
4	44	38	34	31	43	37	33	30	36	33	30	35	32	29	33	31	29	28
5	41	34	30	27	40	34	30	27	33	29	26	31	28	26	30	28	25	24
6	38	31	27	24	37	31	27	24	30	26	23	29	25	23	28	25	23	22
7	35	29	24	21	34	28	24	21	27	23	21	26	23	21	25	23	20	19
8	33	26	22	19	32	26	22	19	25	21	19	24	21	19	24	21	18	17
9	31	24	20	17	30	24	20	17	23	20	17	22	19	17	22	19	17	16
10	29	22	18	16	28	22	18	16	21	18	16	21	18	15	20	17	15	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4355	4355	4355
5°	4364	4334	4317
10°	4422	4363	4352
15°	4444	4372	4377
20°	4403	4305	4324
25°	4307	4208	4231
30°	4176	4068	4081
35°	4039	3893	3881
40°	3775	3554	3544
45°	3518	3116	3228
50°	2748	2332	2680
55°	1967	1804	2412
60°	1374	1464	2252
65°	953	1277	2253
70°	638	1190	2283
75°	518	1258	2335
80°	502	1423	2312
85°	468	1648	2176



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	115.1	3.9	2.0	0°	1201	1201	1201	1201	1201	
10°-20°	338.9	11.5	5.9	5°	1202	1205	1204	1202	1202	115
20°-30°	512.0	17.3	9.0	15°	1193	1199	1205	1212	1214	336
30°-40°	592.1	20.0	10.4	25°	1091	1101	1115	1128	1133	502
40°-50°	528.5	17.9	9.3	35°	931	944	959	966	971	578
50°-60°	336.6	11.4	5.9	45°	706	705	686	706	726	526
60°-70°	215.0	7.3	3.8	55°	324	308	338	423	465	301
70°-80°	150.8	5.1	2.6	65°	118	122	190	308	349	123
80°-90°	92.2	3.1	1.6	75°	41	48	133	237	262	46
90°-100°	37.8	1.3	0.7	85°	15	25	98	137	144	15
100°-110°	16.8	0.6	0.3	90°	1	11	68	87	90	2
110°-120°	10.5	0.4	0.2	95°	0	6	45	51	53	0
120°-130°	7.0	0.2	0.1	105°	0	0	23	25	25	0
130°-140°	4.2	0.1	0.1	115°	0	0	13	21	21	0
140°-150°	1.0	0.0	0.0	125°	0	0	0	20	23	0
150°-160°	0.0	0.0	0.0	135°	0	0	0	16	18	0
160°-170°	0.0	0.0	0.0	145°	0	0	0	0	16	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	966.0	32.7	16.9	165°	0	0	0	0	0	0
0°-40°	1558.2	52.7	27.3	175°	0	0	0	0	0	0
0°-60°	2423.2	81.9	42.5	180°	0	0	0	0	0	0
0°-90°	2881.1	97.4	50.5							
90°-120°	65.1	2.2	1.1							
90°-150°	77.3	2.6	1.4							
90°-180°	77.0	2.6	1.4							
0°-180°	2958.4	100.0	51.9							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1201	1201	1201	1201	1201
5°	1202	1205	1204	1202	1202
10°	1207	1212	1212	1210	1214
15°	1193	1199	1205	1212	1214
20°	1153	1158	1168	1178	1183
25°	1091	1101	1115	1128	1133
30°	1014	1026	1044	1056	1061
35°	931	944	959	966	971
40°	817	832	832	835	845
45°	706	705	686	706	726
50°	504	480	477	529	562
55°	324	308	338	423	465
60°	199	194	247	348	393
65°	118	122	190	308	349
70°	65	72	152	272	306
75°	41	48	133	237	262
80°	28	35	118	192	207
85°	15	25	98	137	144
90°	1	11	68	87	90
95°	0	6	45	51	53
100°	0	5	31	33	33
105°	0	0	23	25	25
110°	0	0	16	21	21
115°	0	0	13	21	21
120°	0	0	0	21	23
125°	0	0	0	20	23
130°	0	0	0	18	21
135°	0	0	0	16	18
140°	0	0	0	0	16
145°	0	0	0	0	16
150°	0	0	0	0	0
155°	0	0	0	0	0
160°	0	0	0	0	0
165°	0	0	0	0	0
170°	0	0	0	0	0
175°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)