

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: 8642.0

Luminaire Tested: **FMS24CR-2U15/8-80/86**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: 8642.0
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMS24CR-2U15/8-80/86
Description: FAIL-SAFE 2x2 SURFACE MNT LUMINAIRE
WHITE REFL w/PRISMATIC LENS & 1/4" CLEAR GLASS LENS
Light Source: 2/31W T8 1.625"U 2800 LUMENS
WATTS=55
FBO31T8/35K
Ballast/Driver: ADVANCE #RIC-2S32-TP

Summary

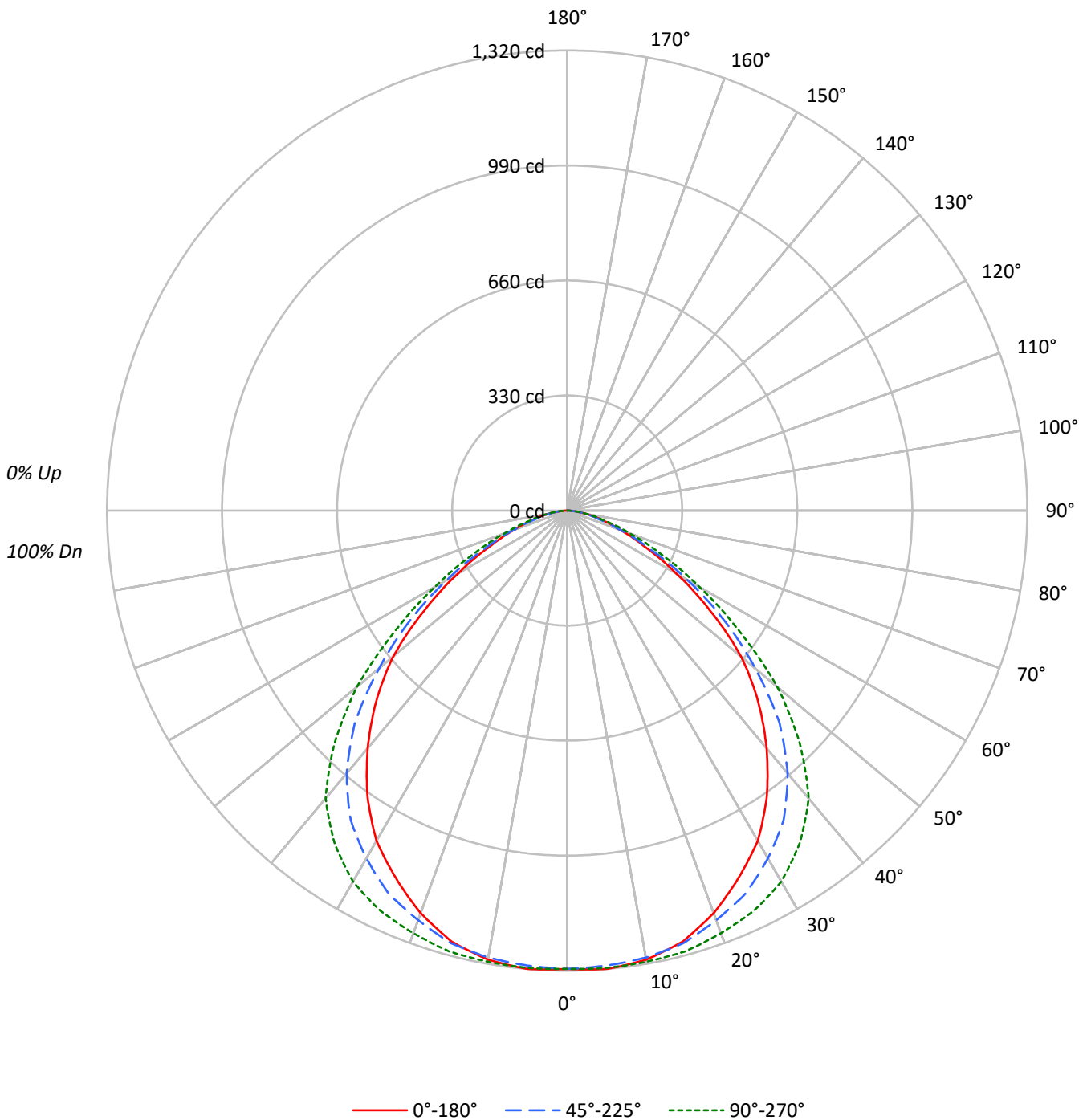
Lumens per Lamp: 2800 (2 lamps)
Luminaire Lumens: 3296.1 lumens
Efficiency: 58.9%
Efficacy: 59.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.37 / 1.37
Luminous Opening: Rectangular (W 1.55' x L: 1.7' x H: 0')
CIE Type: Direct

Input Watts (W): 55
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: 8642.0

CATALOG NUMBER: FMS24CR-2U15/8-80/86

Luminous Intensity Polar Plot





TEST NUMBER: 8642.0

CATALOG NUMBER: FMS24CR-2U15/8-80/86

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0													
RCR																																					
0	70	70	70	70	68	68	68	68	65	65	65	63	63	63	60	60	60	60	60	60	60	60	60	59													
1	65	62	60	58	63	61	59	57	59	57	55	56	55	54	54	53	52	54	53	52	54	53	52	51													
2	60	55	52	49	58	54	51	48	52	49	47	50	48	46	48	47	45	48	47	45	48	47	45	44													
3	55	49	45	41	53	48	44	41	46	43	40	45	42	39	43	41	39	43	41	39	43	41	39	38													
4	50	44	39	35	49	43	39	35	42	38	35	40	37	34	39	36	34	39	36	34	39	36	34	33													
5	46	39	34	31	45	39	34	31	38	33	30	36	33	30	35	32	30	35	32	30	35	32	30	28													
6	43	36	31	27	42	35	30	27	34	30	27	33	29	27	32	29	26	32	29	26	32	29	26	25													
7	40	32	27	24	39	32	27	24	31	27	24	30	26	24	29	26	23	29	26	23	29	26	23	22													
8	37	30	25	22	36	29	25	21	28	24	21	28	24	21	27	24	21	27	24	21	27	24	21	20													
9	35	27	23	19	34	27	22	19	26	22	19	26	22	19	25	22	19	25	22	19	25	22	19	18													
10	33	25	21	18	32	25	21	18	24	20	18	24	20	17	23	20	17	23	20	17	23	20	17	16													

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5371	5371	5371
5°	5412	5371	5400
10°	5425	5400	5450
15°	5413	5434	5535
20°	5342	5433	5607
25°	5241	5462	5710
30°	5160	5433	5796
35°	4981	5400	5804
40°	4745	5247	5748
45°	4477	4973	5453
50°	4143	4473	5001
55°	3568	3924	4287
60°	2957	3251	3578
65°	2378	2561	2890
70°	1935	1947	2281
75°	1610	1452	1736
80°	1317	1200	1411
85°	937	844	984



TEST NUMBER: 8642.0

CATALOG NUMBER: FMS24CR-2U15/8-80/86

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	125.2	3.8	2.2	0°	1315	1315	1315	1315	1315	
10°-20°	363.6	11.0	6.5	5°	1320	1315	1310	1313	1317	126
20°-30°	559.2	17.0	10.0	15°	1280	1276	1285	1300	1309	360
30°-40°	675.2	20.5	12.1	25°	1163	1182	1212	1246	1267	537
40°-50°	661.3	20.1	11.8	35°	999	1025	1083	1139	1164	623
50°-60°	496.4	15.1	8.9	45°	775	804	861	929	944	597
60°-70°	275.0	8.3	4.9	55°	501	525	551	590	602	450
70°-80°	114.3	3.5	2.0	65°	246	255	265	288	299	251
80°-90°	26.0	0.8	0.5	75°	102	104	92	107	110	111
90°-100°	0.0	0.0	0.0	85°	20	20	18	20	21	26
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	
110°-120°	0.0	0.0	0.0							
120°-130°	0.0	0.0	0.0							
130°-140°	0.0	0.0	0.0							
140°-150°	0.0	0.0	0.0							
150°-160°	0.0	0.0	0.0							
160°-170°	0.0	0.0	0.0							
170°-180°	0.0	0.0	0.0							
0°-30°	1048.0	31.8	18.7							
0°-40°	1723.2	52.3	30.8							
0°-60°	2880.8	87.4	51.4							
0°-90°	3296.1	100.0	58.9							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	3296.1	100.0	58.9							



TEST NUMBER: 8642.0

CATALOG NUMBER: FMS24CR-2U15/8-80/86

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1315	1315	1315	1315	1315
5°	1320	1315	1310	1313	1317
10°	1308	1302	1302	1309	1314
15°	1280	1276	1285	1300	1309
20°	1229	1232	1250	1279	1290
25°	1163	1182	1212	1246	1267
30°	1094	1112	1152	1211	1229
35°	999	1025	1083	1139	1164
40°	890	927	984	1051	1078
45°	775	804	861	929	944
50°	652	670	704	763	787
55°	501	525	551	590	602
60°	362	373	398	428	438
65°	246	255	265	288	299
70°	162	170	163	182	191
75°	102	104	92	107	110
80°	56	56	51	60	60
85°	20	20	18	20	21
90°	0	0	0	0	0

(END OF REPORT)