

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: 8683.0

Luminaire Tested: **FMS24CR-240BX-80/86**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: 8683.0
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FMS24CR-240BX-80/86
Description: FAIL-SAFE 2x2 SURFACE MOUNT LUMINAIRE
WHITE REFL w/PRISMATIC LENS & 1/4" CLEAR GLASS LENS
Light Source: 2/40W BIAX 3150 LUMENS
WATTS=70
FT40W/2G11/RS/35
Ballast/Driver: ADVANCE #RIC-2S32-TP

Summary

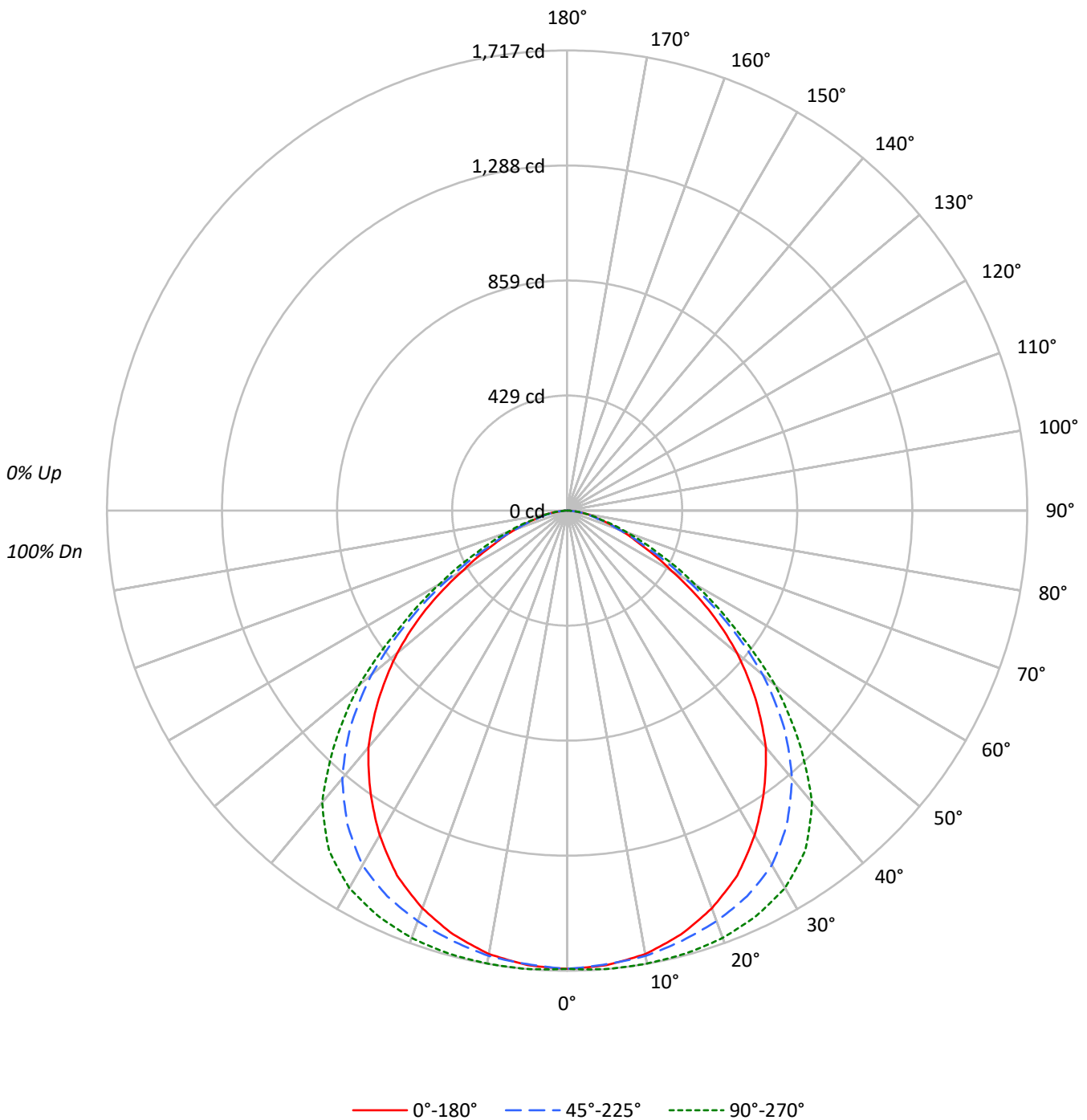
Lumens per Lamp: 3150 (2 lamps)
Luminaire Lumens: 4277.6 lumens
Efficiency: 67.9%
Efficacy: 61.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.4 / 1.38
Luminous Opening: Rectangular (W 1.55' x L: 1.7' x H: 0')
CIE Type: Direct

Input Watts (W): 70
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

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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	50	30	10	50	30	10	0		
RCR																										
0	81	81	81	81	79	79	79	79	75	75	75	72	72	72	69	69	69	68								
1	75	72	70	67	73	71	68	66	68	66	64	65	64	62	63	61	60	59								
2	69	64	60	56	67	63	59	56	60	57	54	58	55	53	56	54	52	51								
3	63	57	52	48	62	56	51	47	54	50	46	52	49	46	50	47	45	44								
4	58	51	45	41	57	50	45	41	48	44	40	47	43	40	45	42	39	38								
5	54	46	40	36	52	45	40	36	43	39	35	42	38	35	41	37	34	33								
6	50	41	36	31	49	41	35	31	39	35	31	38	34	31	37	33	30	29								
7	46	37	32	28	45	37	32	28	36	31	28	35	31	27	34	30	27	26								
8	43	34	29	25	42	34	29	25	33	28	25	32	28	25	31	27	24	23								
9	40	31	26	23	39	31	26	22	30	26	22	30	25	22	29	25	22	21								
10	38	29	24	20	37	29	24	20	28	23	20	27	23	20	27	23	20	19								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6985	6985	6985
5°	6978	6966	7040
10°	6968	6997	7117
15°	6926	7024	7235
20°	6863	7085	7376
25°	6769	7157	7522
30°	6598	7207	7669
35°	6382	7125	7724
40°	6148	6958	7582
45°	5742	6614	7076
50°	5261	6056	6437
55°	4586	5177	5426
60°	3676	4183	4509
65°	2948	3199	3595
70°	2472	2412	2842
75°	1941	1846	2083
80°	1764	1576	1741
85°	1078	1031	984



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	162.4	3.8	2.6	0°	1710	1710	1710	1710	1710	
10°-20°	471.7	11.0	7.5	5°	1702	1701	1699	1711	1717	162
20°-30°	731.7	17.1	11.6	15°	1638	1643	1661	1697	1711	462
30°-40°	888.9	20.8	14.1	25°	1502	1531	1588	1646	1669	690
40°-50°	865.7	20.2	13.7	35°	1280	1340	1429	1520	1549	800
50°-60°	639.3	14.9	10.1	45°	994	1067	1145	1201	1225	766
60°-70°	346.0	8.1	5.5	55°	644	677	727	749	762	573
70°-80°	140.4	3.3	2.2	65°	305	333	331	353	372	313
80°-90°	31.5	0.7	0.5	75°	123	122	117	125	132	139
90°-100°	0.0	0.0	0.0	85°	23	22	22	21	21	33
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°	1365.8	31.9	21.7							
0°-40°	2254.7	52.7	35.8							
0°-60°	3759.7	87.9	59.7							
0°-90°	4277.6	100.0	67.9							
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°	4277.6	100.0	67.9							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1710	1710	1710	1710	1710
5°	1702	1701	1699	1711	1717
10°	1680	1681	1687	1707	1716
15°	1638	1643	1661	1697	1711
20°	1579	1594	1630	1677	1697
25°	1502	1531	1588	1646	1669
30°	1399	1450	1528	1603	1626
35°	1280	1340	1429	1520	1549
40°	1153	1220	1305	1384	1422
45°	994	1067	1145	1201	1225
50°	828	873	953	962	1013
55°	644	677	727	749	762
60°	450	491	512	528	552
65°	305	333	331	353	372
70°	207	212	202	221	238
75°	123	122	117	125	132
80°	75	73	67	75	74
85°	23	22	22	21	21
90°	0	0	0	0	0

(END OF REPORT)