

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: P26422

Luminaire Tested: **ORM-G-24-4-LD4-4HI-40-UNV-ASYSYMRFI-ED**

Test Date: 07/06/15

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P26422  
Test Lab: INNOVATION CENTER-P2  
Test Date: 07/06/15  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: ORM-G-24-4-LD4-4HI-40-UNV-ASYSYMRFI-ED  
Description: FAILSAFE RECESSED OPERATING ROOM FIXTURE  
Light Source: (336) ULM2.0 4000K LEDS  
2UT217042A8404A  
Ballast/Driver: (2) OSRAM ELECTRONIC DRIVER  
OSRAM OTI85W

Luminaire Equipment:	<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
	AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
	AS-5443-2	Good	REFLECTOR
	AS-5443-3	Good	DRIVER
	AS-5443-4	Good	UPPER MODULE
	AS-5443-5	Good	LENS
	AS-5443-6	Good	DRIVER 2
	AS-5443-7	Good	TRIM RING

**Summary**

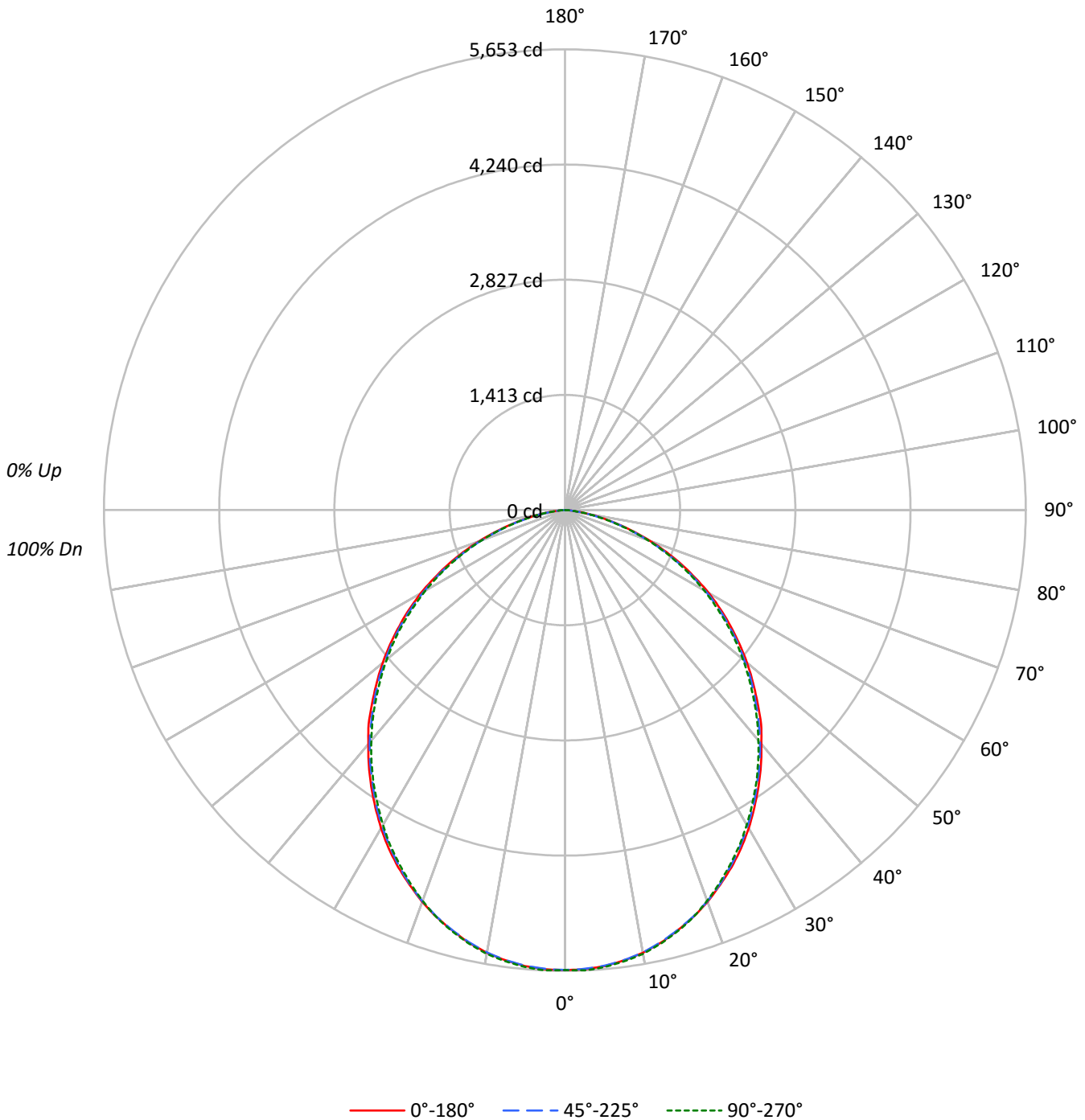
Lumens per Lamp: N/A  
Luminaire Lumens: 13934.5 lumens  
Efficiency: N/A  
Efficacy: 75.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.29  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 184.1  
Input Voltage (V): 120.07  
Input Current (Ain): 1.5357  
Voltage Rise (V): NR  
Power Factor: 0.9986  
Total Harmonic Distortion (THDi): 2.80%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: 24 HR  
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	88	85
2	100	92	86	81	98	91	85	80	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53
5	78	65	56	50	75	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	38	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	42	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7593	7593	7593
5°	7585	7577	7601
10°	7533	7528	7553
15°	7437	7433	7452
20°	7322	7315	7307
25°	7178	7150	7122
30°	7005	6959	6929
35°	6800	6748	6718
40°	6587	6539	6486
45°	6355	6285	6228
50°	6104	6018	5968
55°	5813	5742	5672
60°	5487	5374	5312
65°	5027	4900	4849
70°	4414	4280	4288
75°	3577	3488	3441
80°	2549	2479	2433
85°	1359	1343	1250



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	532.5	3.8
10°-20°	1504.3	10.8
20°-30°	2215.6	15.9
30°-40°	2570.7	18.4
40°-50°	2550.2	18.3
50°-60°	2185.7	15.7
60°-70°	1527.7	11.0
70°-80°	722.3	5.2
80°-90°	125.5	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	4252.3	30.5
0°-40°	6823.0	49.0
0°-60°	11559.0	83.0
0°-90°	13934.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	13934.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5643	5643	5643	5643	5643	
5°	5616	5600	5610	5616	5628	533
15°	5339	5329	5336	5341	5350	1506
25°	4835	4818	4816	4799	4797	2226
35°	4140	4129	4108	4093	4090	2589
45°	3340	3327	3303	3283	3273	2579
55°	2478	2466	2448	2422	2418	2217
65°	1579	1557	1539	1522	1523	1562
75°	688	683	671	664	662	739
85°	88	90	87	86	81	128
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	5643	5643	5643	5643	5643
2.5°	5639	5626	5634	5642	5653
5°	5616	5600	5610	5616	5628
7.5°	5572	5558	5569	5571	5584
10°	5514	5501	5510	5514	5528
12.5°	5437	5422	5432	5440	5447
15°	5339	5329	5336	5341	5350
17.5°	5236	5223	5231	5229	5238
20°	5114	5100	5109	5101	5103
22.5°	4977	4965	4968	4952	4955
25°	4835	4818	4816	4799	4797
27.5°	4680	4659	4654	4640	4638
30°	4509	4484	4479	4466	4460
32.5°	4325	4314	4304	4283	4277
35°	4140	4129	4108	4093	4090
37.5°	3951	3934	3922	3895	3895
40°	3750	3736	3723	3691	3693
42.5°	3565	3538	3514	3488	3490
45°	3340	3327	3303	3283	3273
47.5°	3129	3118	3100	3073	3065
50°	2916	2902	2875	2859	2851
52.5°	2699	2690	2668	2640	2638
55°	2478	2466	2448	2422	2418
57.5°	2263	2251	2225	2200	2192
60°	2039	2023	1997	1976	1974
62.5°	1806	1794	1768	1753	1748
65°	1579	1557	1539	1522	1523
67.5°	1353	1331	1311	1296	1304
70°	1122	1109	1088	1076	1090
72.5°	898	885	872	866	870
75°	688	683	671	664	662
77.5°	496	490	484	479	476
80°	329	324	320	317	314
82.5°	189	191	185	182	180
85°	88	90	87	86	81
87.5°	28	30	29	29	26
90°	0	0	0	0	0

(END OF REPORT)