

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: P26479

Luminaire Tested: **ORM-G-12-4-LD4-2HI-40-UNV-ASYMMRFI-ED**

Issue Date: 3/3/2020

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: P26479  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: ORM-G-12-4-LD4-2HI-40-UNV-ASYMMRFI-ED  
Description: FAILSAFE RECESSED OPERATING ROOM FIXTURE  
Light Source: (168) ULM2.0 4000K LEDS  
2UT217042A8404A  
Ballast/Driver: (1) OSRAM ELECTRONIC DRIVER  
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**

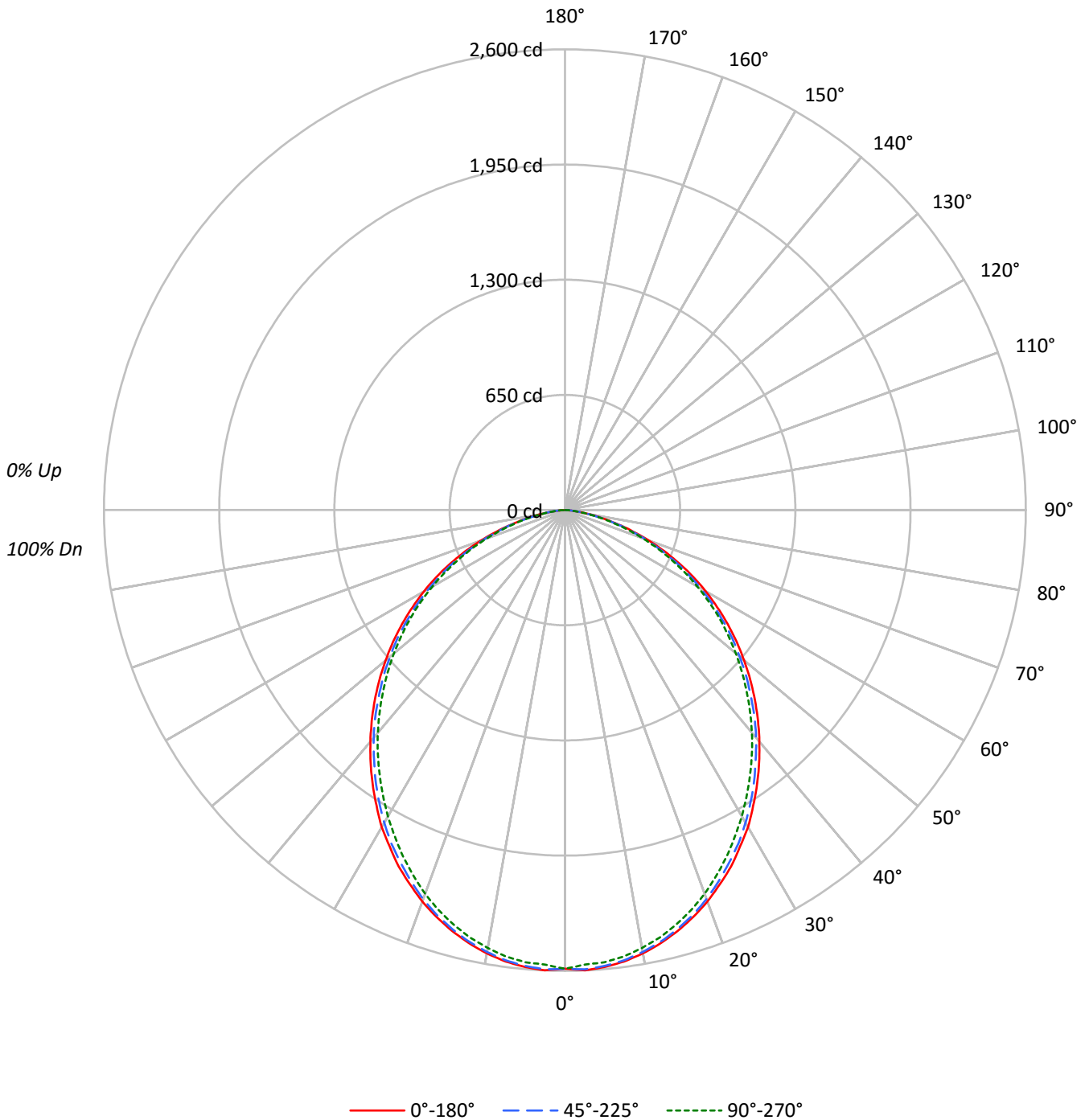
Lumens per Lamp: N/A  
Luminaire Lumens: 6280.1 lumens  
Efficiency: N/A  
Efficacy: 68.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.16 / 1.28  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 92.2  
Input Voltage (V): 120.00  
Input Current (A<sub>in</sub>): 0.76953  
Voltage Rise (V): NR  
Power Factor: 0.9991  
Total Harmonic Distortion (THDi): 3.34%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: 24 HR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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CATALOG NUMBER: ORM-G-12-4-LD4-2HI-40-UNV-ASYSYMRFI-ED

### 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	86
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	68	64	62
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	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	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	32
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31	29
10	55	42	34	29	53	41	34	29	40	33	29	39	33	28	38	33	28	27

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

	0°	45°	90°
0°	6964	6964	6964
5°	6991	6975	6918
10°	6941	6919	6856
15°	6851	6823	6750
20°	6733	6690	6601
25°	6589	6514	6407
30°	6420	6333	6202
35°	6209	6117	5985
40°	5996	5895	5768
45°	5769	5644	5522
50°	5526	5388	5271
55°	5259	5100	4987
60°	4941	4763	4645
65°	4527	4349	4222
70°	3973	3808	3690
75°	3234	3130	2994
80°	2325	2278	2154
85°	1297	1420	1389



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	244.0	3.9
10°-20°	687.3	10.9
20°-30°	1006.4	16.0
30°-40°	1160.3	18.5
40°-50°	1144.2	18.2
50°-60°	974.4	15.5
60°-70°	678.6	10.8
70°-80°	323.4	5.1
80°-90°	61.5	1.0
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°	1937.7	30.9
0°-40°	3098.0	49.3
0°-60°	5216.6	83.1
0°-90°	6280.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6280.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2588	2588	2588	2588	2588	
5°	2588	2564	2582	2571	2561	246
15°	2459	2436	2449	2437	2423	693
25°	2219	2194	2194	2170	2158	1020
35°	1890	1871	1862	1833	1822	1182
45°	1516	1505	1483	1461	1451	1169
55°	1121	1112	1087	1071	1063	1001
65°	711	700	683	670	663	704
75°	311	308	301	297	288	334
85°	42	45	46	46	45	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2588	2588	2588	2588	2588
2.5°	2600	2574	2594	2584	2567
5°	2588	2564	2582	2571	2561
7.5°	2569	2544	2562	2551	2541
10°	2540	2514	2532	2519	2509
12.5°	2503	2479	2495	2481	2471
15°	2459	2436	2449	2437	2423
17.5°	2408	2385	2397	2382	2367
20°	2351	2328	2336	2314	2305
22.5°	2285	2263	2267	2243	2233
25°	2219	2194	2194	2170	2158
27.5°	2140	2119	2120	2090	2077
30°	2066	2040	2038	2008	1996
32.5°	1978	1957	1951	1922	1910
35°	1890	1871	1862	1833	1822
37.5°	1800	1783	1769	1742	1733
40°	1707	1693	1678	1650	1642
42.5°	1612	1600	1583	1556	1547
45°	1516	1505	1483	1461	1451
47.5°	1419	1408	1388	1364	1355
50°	1320	1311	1287	1267	1259
52.5°	1221	1212	1190	1170	1161
55°	1121	1112	1087	1071	1063
57.5°	1019	1010	988	971	963
60°	918	908	885	870	863
62.5°	816	804	785	768	763
65°	711	700	683	670	663
67.5°	607	598	583	575	566
70°	505	498	484	477	469
72.5°	406	400	391	384	376
75°	311	308	301	297	288
77.5°	225	224	219	215	208
80°	150	150	147	143	139
82.5°	87	90	89	87	84
85°	42	45	46	46	45
87.5°	14	18	21	23	23
90°	0	0	0	0	0

(END OF REPORT)