

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: P26421

Luminaire Tested: **ORM-G-24-4-LD4-6HI-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: P26421  
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-LD4-6HI-40-UNV-ASYSYMRFI-ED  
Description: FAILSAFE RECESSED OPERATING ROOM FIXTURE  
Light Source: (504) ULM2.0 4000K LEDS  
2UT217042A8404A  
Ballast/Driver: (3) 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**

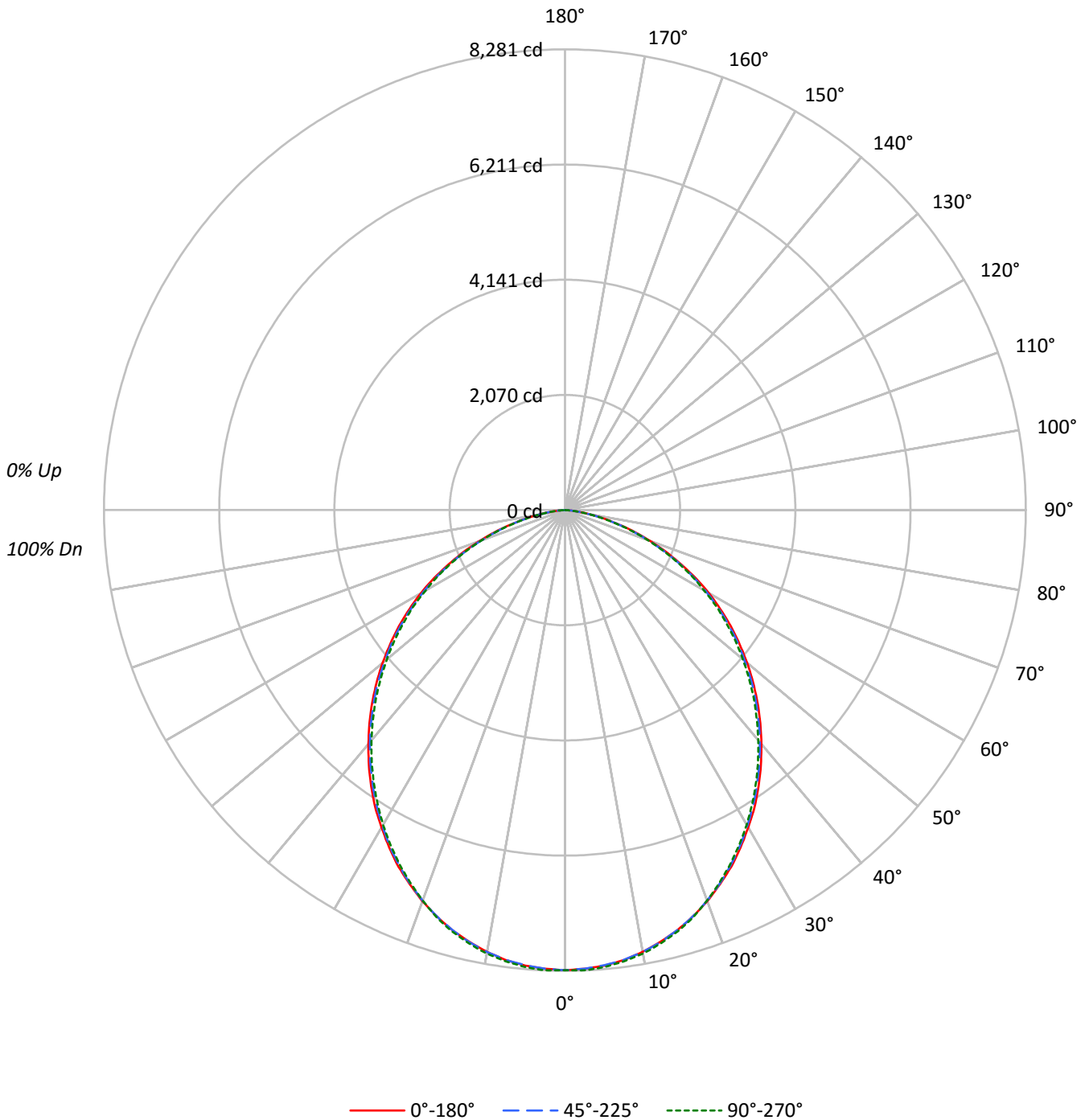
Lumens per Lamp: N/A  
Luminaire Lumens: 20437.6 lumens  
Efficiency: N/A  
Efficacy: 74.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.29  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 274.3  
Input Voltage (V): 119.99  
Input Current (Ain): 2.2892  
Voltage Rise (V): NR  
Power Factor: 0.9991  
Total Harmonic Distortion (THDi): 3.05%  
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	87	85
2	100	92	86	80	98	90	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	56	66	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	40
7	67	53	45	39	65	53	44	39	51	44	38	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	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	41	34	29	53	41	34	29	40	33	28	39	33	28	38	32	28	26

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

	0°	45°	90°
0°	11126	11126	11126
5°	11098	11091	11131
10°	11013	11016	11058
15°	10886	10883	10919
20°	10712	10697	10692
25°	10500	10460	10431
30°	10232	10183	10147
35°	9967	9890	9827
40°	9646	9569	9492
45°	9318	9227	9137
50°	8948	8827	8741
55°	8529	8414	8302
60°	8033	7882	7772
65°	7329	7202	7138
70°	6432	6302	6271
75°	5235	5157	5121
80°	3797	3673	3673
85°	2100	2053	2069



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	780.2	3.8
10°-20°	2203.9	10.8
20°-30°	3245.2	15.9
30°-40°	3765.6	18.4
40°-50°	3737.5	18.3
50°-60°	3202.0	15.7
60°-70°	2242.9	11.0
70°-80°	1069.1	5.2
80°-90°	191.2	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°	6229.3	30.5
0°-40°	9994.9	48.9
0°-60°	16934.4	82.9
0°-90°	20437.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	20437.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	8269	8269	8269	8269	8269	
5°	8217	8222	8212	8231	8241	779
15°	7815	7822	7813	7829	7839	2202
25°	7073	7072	7046	7034	7026	3254
35°	6068	6056	6021	5990	5983	3792
45°	4897	4890	4849	4805	4802	3775
55°	3636	3617	3587	3542	3539	3249
65°	2302	2293	2262	2232	2242	2282
75°	1007	1004	992	990	985	1090
85°	136	135	133	135	134	194
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	8269	8269	8269	8269	8269
2.5°	8250	8255	8250	8268	8281
5°	8217	8222	8212	8231	8241
7.5°	8155	8160	8151	8168	8179
10°	8061	8070	8063	8083	8094
12.5°	7948	7959	7952	7971	7976
15°	7815	7822	7813	7829	7839
17.5°	7656	7669	7656	7661	7673
20°	7481	7489	7471	7472	7467
22.5°	7279	7286	7268	7262	7253
25°	7073	7072	7046	7034	7026
27.5°	6837	6839	6810	6790	6784
30°	6586	6592	6554	6534	6531
32.5°	6339	6330	6293	6266	6263
35°	6068	6056	6021	5990	5983
37.5°	5785	5775	5739	5703	5699
40°	5492	5486	5448	5409	5404
42.5°	5197	5190	5153	5110	5105
45°	4897	4890	4849	4805	4802
47.5°	4587	4572	4546	4495	4490
50°	4275	4260	4217	4176	4176
52.5°	3956	3941	3913	3864	3859
55°	3636	3617	3587	3542	3539
57.5°	3311	3296	3258	3217	3231
60°	2985	2966	2929	2891	2888
62.5°	2650	2631	2597	2570	2574
65°	2302	2293	2262	2232	2242
67.5°	1968	1961	1925	1908	1917
70°	1635	1633	1602	1595	1594
72.5°	1328	1310	1285	1288	1281
75°	1007	1004	992	990	985
77.5°	739	725	719	718	713
80°	490	483	474	474	474
82.5°	287	282	281	281	278
85°	136	135	133	135	134
87.5°	46	49	49	48	47
90°	0	0	0	0	0

(END OF REPORT)