

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: P26471

Luminaire Tested: **ORM-G-24-2-LD4-6STD-40-UNV-ASYSYMRFI-ED**

Test Date: 07/24/15

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: P26471
Test Lab: INNOVATION CENTER-P2
Test Date: 07/24/15
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORM-G-24-2-LD4-6STD-40-UNV-ASYSYMRFI-ED
Description: FAILSAFE 2X2 LED RECESSED OPERATING ROOM FIXTURE
Light Source: (252) ULM2.0 4000K LEDS
2UT217042A8404A
Ballast/Driver: (2) OSRAM ELECTRONIC DRIVER
(1) OSRAM OTI85W (1) OSRAM OT50W

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

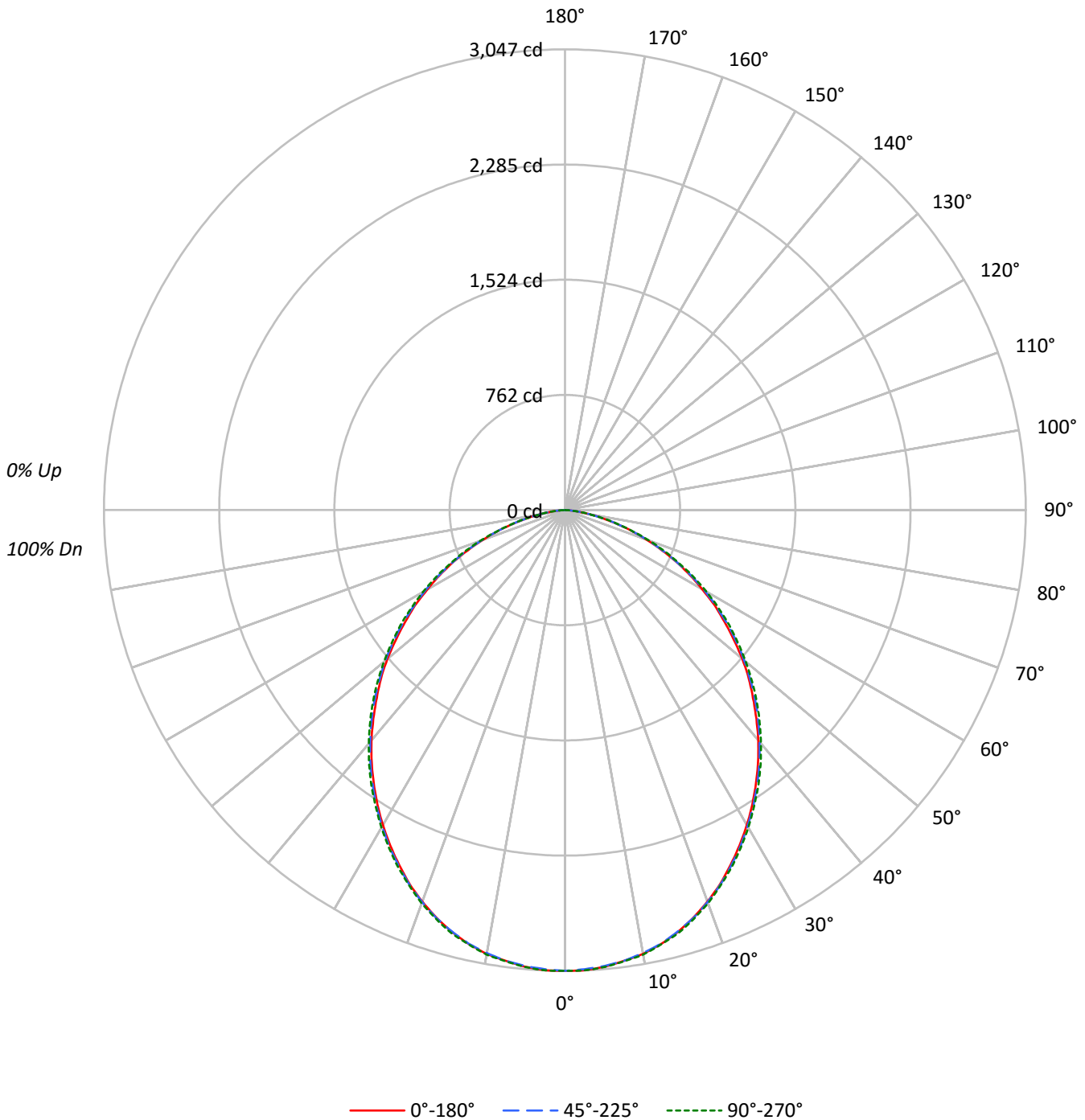
Lumens per Lamp: N/A
Luminaire Lumens: 7506.8 lumens
Efficiency: N/A
Efficacy: 71.8 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.19 / 1.29
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 104.5
Input Voltage (V): 120.05
Input Current (A_{in}): 0.87177
Voltage Rise (V): NR
Power Factor: 0.9985
Total Harmonic Distortion (THDi): 2.56%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 4 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	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	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	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	45	39	34	32
9	58	45	37	32	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	55	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°	8199	8199	8199
5°	8188	8174	8193
10°	8143	8129	8156
15°	8046	8037	8071
20°	7892	7901	7924
25°	7693	7714	7741
30°	7476	7504	7535
35°	7237	7280	7319
40°	6987	7033	7085
45°	6694	6770	6831
50°	6409	6481	6543
55°	6043	6141	6221
60°	5640	5743	5829
65°	5177	5234	5310
70°	4548	4611	4705
75°	3722	3774	3899
80°	2758	2743	2758
85°	1698	1698	1575



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	287.5	3.8
10°-20°	813.6	10.8
20°-30°	1196.4	15.9
30°-40°	1385.7	18.5
40°-50°	1371.9	18.3
50°-60°	1170.0	15.6
60°-70°	816.6	10.9
70°-80°	391.1	5.2
80°-90°	73.9	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°	2297.6	30.6
0°-40°	3683.3	49.1
0°-60°	6225.2	82.9
0°-90°	7506.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7506.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3047	3047	3047	3047	3047	
5°	3031	3029	3026	3027	3033	288
15°	2888	2887	2885	2890	2897	813
25°	2591	2596	2598	2601	2607	1193
35°	2203	2209	2216	2224	2228	1378
45°	1759	1770	1779	1789	1795	1359
55°	1288	1298	1309	1322	1326	1154
65°	813	817	822	834	834	805
75°	358	362	363	368	375	387
85°	55	55	55	52	51	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3047	3047	3047	3047	3047
2.5°	3046	3045	3039	3043	3047
5°	3031	3029	3026	3027	3033
7.5°	3006	3007	3006	3008	3010
10°	2980	2979	2975	2978	2985
12.5°	2939	2938	2937	2940	2942
15°	2888	2887	2885	2890	2897
17.5°	2826	2827	2828	2830	2835
20°	2756	2759	2759	2762	2767
22.5°	2679	2684	2683	2685	2688
25°	2591	2596	2598	2601	2607
27.5°	2500	2505	2510	2515	2518
30°	2406	2410	2415	2419	2425
32.5°	2307	2311	2319	2326	2327
35°	2203	2209	2216	2224	2228
37.5°	2098	2104	2113	2121	2125
40°	1989	1994	2002	2013	2017
42.5°	1874	1883	1894	1901	1906
45°	1759	1770	1779	1789	1795
47.5°	1650	1654	1664	1676	1678
50°	1531	1537	1548	1559	1563
52.5°	1409	1419	1429	1442	1443
55°	1288	1298	1309	1322	1326
57.5°	1175	1179	1188	1201	1204
60°	1048	1057	1067	1079	1083
62.5°	934	938	943	958	962
65°	813	817	822	834	834
67.5°	694	697	703	713	716
70°	578	583	586	594	598
72.5°	470	467	469	478	476
75°	358	362	363	368	375
77.5°	264	263	263	267	273
80°	178	177	177	180	178
82.5°	107	107	107	105	108
85°	55	55	55	52	51
87.5°	24	25	23	20	18
90°	0	0	0	0	0

(END OF REPORT)