

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: P26475

Luminaire Tested: **ORM-G-24-2-LD4-4LO-40-UNV-ASYSYMRFI-ED**

Test Date: 07/23/15

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: P26475
Test Lab: INNOVATION CENTER-P2
Test Date: 07/23/15
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORM-G-24-2-LD4-4LO-40-UNV-ASYSYMRFI-ED
Description: FAILSAFE 2X2 LED RECESSED OPERATING ROOM FIXTURE
Light Source: (168) ULM2.0 4000K LEDS
2UT217042A8404A
Ballast/Driver: (1) OSRAM ELECTRONIC DRIVER
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

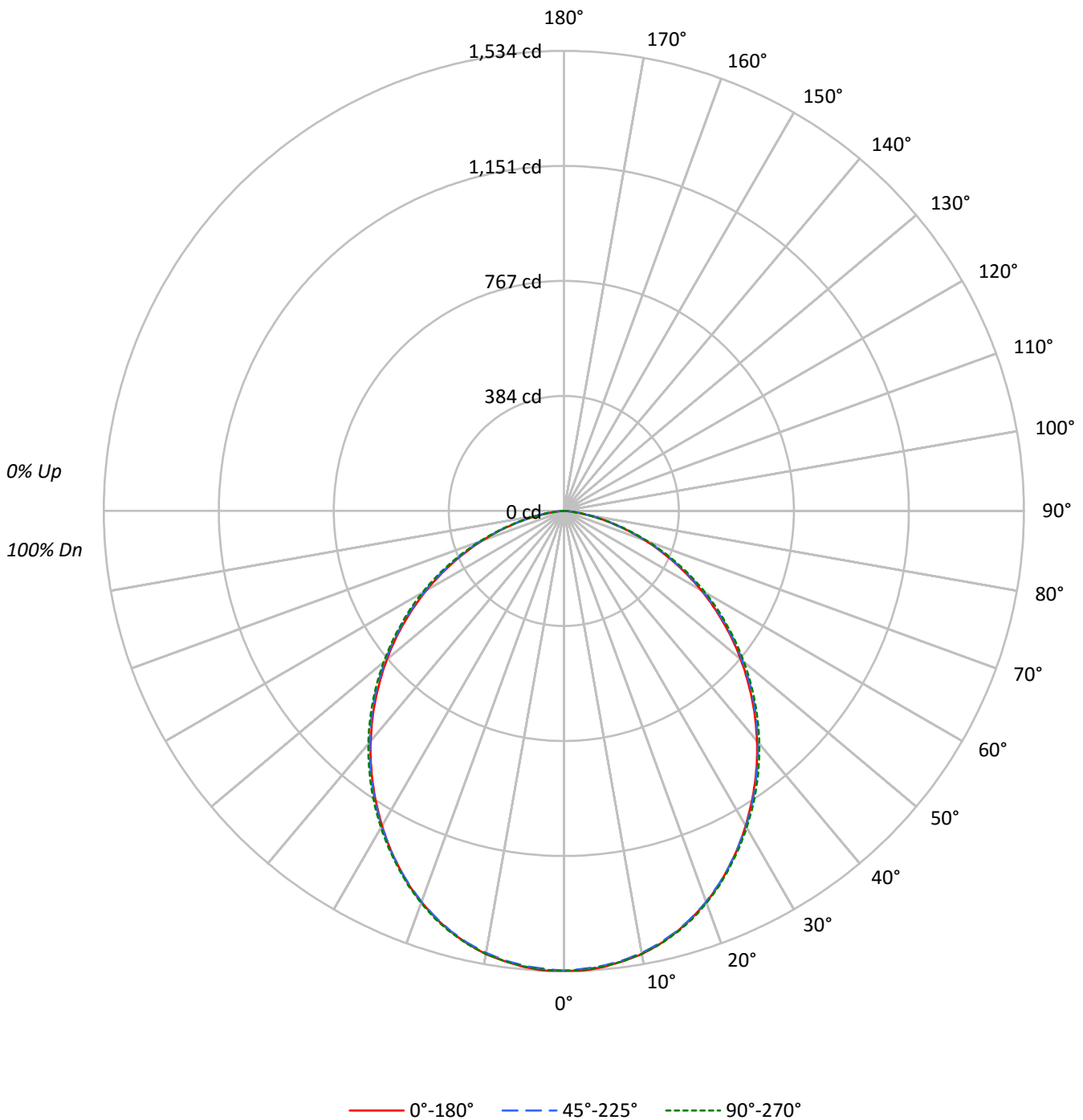
Lumens per Lamp: N/A
Luminaire Lumens: 3769.9 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.19 / 1.29
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 48
Input Voltage (V): 120.03
Input Current (A_{in}): 0.40146
Voltage Rise (V): NR
Power Factor: 0.9994
Total Harmonic Distortion (THDi): 8.29%
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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CATALOG NUMBER: ORM-G-24-2-LD4-4LO-40-UNV-ASYSYMRFI-ED

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	62
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	54	45	39	65	53	45	39	51	44	39	50	43	38	48	43	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	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4125	4125	4125
5°	4122	4111	4117
10°	4099	4088	4096
15°	4048	4042	4053
20°	3975	3972	3983
25°	3878	3878	3890
30°	3766	3772	3788
35°	3646	3660	3679
40°	3520	3537	3562
45°	3379	3406	3429
50°	3224	3253	3282
55°	3050	3082	3115
60°	2847	2879	2933
65°	2598	2630	2687
70°	2282	2313	2360
75°	1861	1882	1934
80°	1348	1364	1379
85°	803	803	741



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.6	3.8
10°-20°	409.2	10.9
20°-30°	601.8	16.0
30°-40°	696.7	18.5
40°-50°	689.6	18.3
50°-60°	587.3	15.6
60°-70°	409.6	10.9
70°-80°	195.3	5.2
80°-90°	35.7	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°	1155.6	30.7
0°-40°	1852.3	49.1
0°-60°	3129.2	83.0
0°-90°	3769.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3769.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1533	1533	1533	1533	1533	
5°	1526	1524	1522	1523	1524	145
15°	1453	1452	1451	1453	1455	409
25°	1306	1304	1306	1310	1310	601
35°	1110	1110	1114	1119	1120	694
45°	888	889	895	899	901	684
55°	650	652	657	662	664	581
65°	408	410	413	418	422	404
75°	179	180	181	184	186	192
85°	26	27	26	25	24	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1533	1533	1533	1533	1533
2.5°	1534	1532	1528	1529	1531
5°	1526	1524	1522	1523	1524
7.5°	1514	1513	1511	1512	1514
10°	1500	1498	1496	1498	1499
12.5°	1479	1478	1476	1478	1480
15°	1453	1452	1451	1453	1455
17.5°	1423	1422	1421	1425	1426
20°	1388	1387	1387	1390	1391
22.5°	1350	1348	1348	1352	1353
25°	1306	1304	1306	1310	1310
27.5°	1261	1259	1261	1265	1266
30°	1212	1211	1214	1219	1219
32.5°	1162	1161	1165	1169	1171
35°	1110	1110	1114	1119	1120
37.5°	1057	1057	1061	1066	1068
40°	1002	1002	1007	1012	1014
42.5°	945	946	951	956	958
45°	888	889	895	899	901
47.5°	829	832	837	841	843
50°	770	772	777	782	784
52.5°	711	713	718	722	725
55°	650	652	657	662	664
57.5°	590	590	597	602	606
60°	529	531	535	540	545
62.5°	468	470	474	479	483
65°	408	410	413	418	422
67.5°	348	350	352	357	360
70°	290	291	294	297	300
72.5°	233	234	236	239	241
75°	179	180	181	184	186
77.5°	130	131	132	133	135
80°	87	87	88	88	89
82.5°	51	52	52	52	52
85°	26	27	26	25	24
87.5°	11	11	10	9	8
90°	0	0	0	0	0

(END OF REPORT)