

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: P26481

Luminaire Tested: **ORM-G-12-4-LD4-2LO-40-UNV-ASYMRFI-ED**

Test Date: 08/04/15

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: P26481
Test Lab: INNOVATION CENTER-P2
Test Date: 08/04/15
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORM-G-12-4-LD4-2LO-40-UNV-ASYSYMRFI-ED
Description: FAILSAFE RECESSED OPERATING ROOM FIXTURE
Light Source: (168) ULM2.0 4000K LEDS
2UT217042A8404A
Ballast/Driver: (1) OSRAM ELECTRONIC DRIVER
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

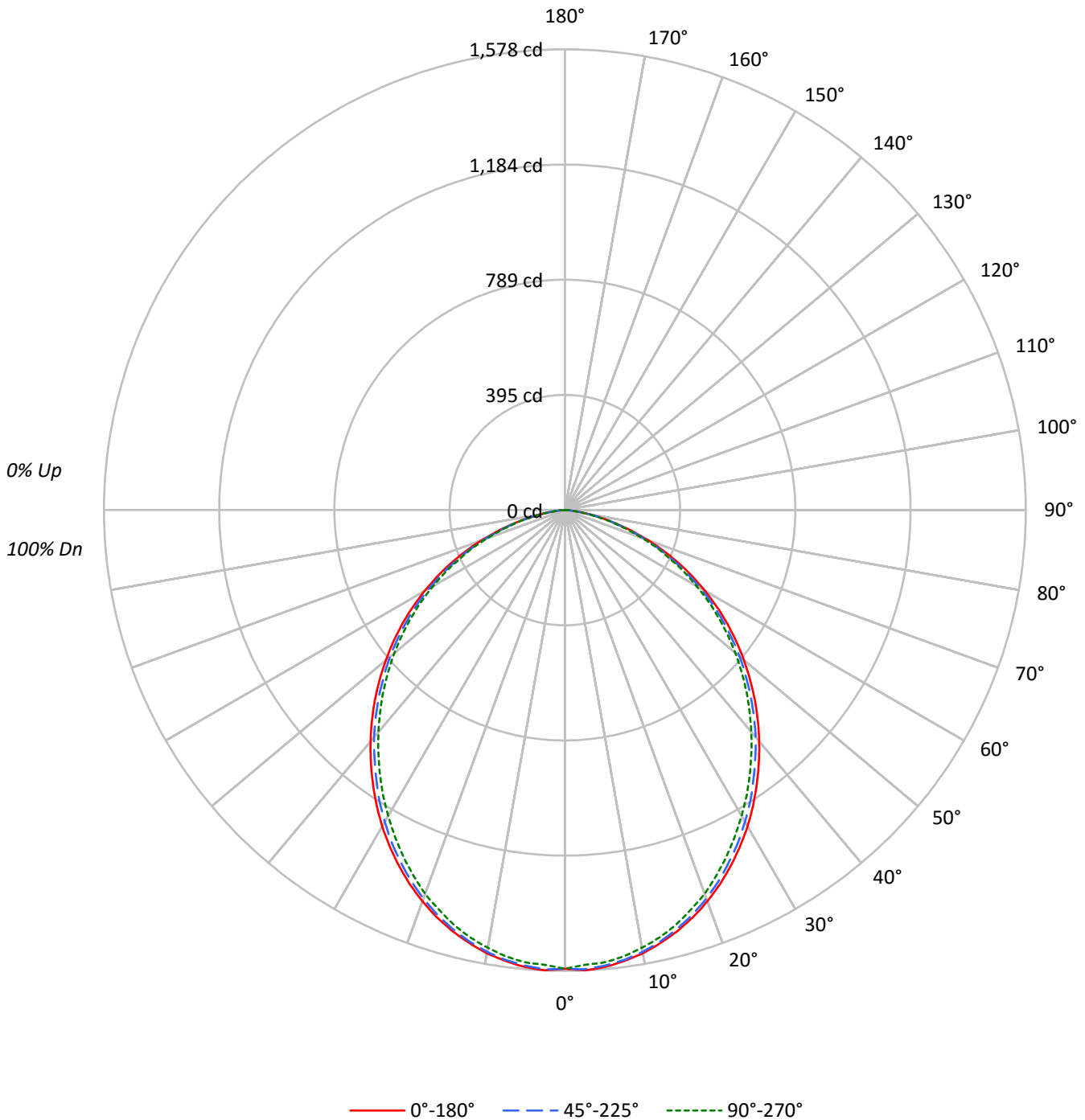
Lumens per Lamp: N/A
Luminaire Lumens: 3800.0 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.16 / 1.28
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 51.2
Input Voltage (V): 120.00
Input Current (A_{in}): 0.43009
Voltage Rise (V): NR
Power Factor: 0.9953
Total Harmonic Distortion (THDi): 8.56%
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	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	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	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	44	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	41	35	47	40	35	46	39	35	45	39	34	33
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	29	38	33	28	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4228	4228	4228
5°	4244	4230	4200
10°	4211	4197	4159
15°	4157	4137	4095
20°	4084	4055	4006
25°	3991	3949	3887
30°	3887	3831	3760
35°	3765	3699	3627
40°	3636	3569	3488
45°	3501	3421	3345
50°	3349	3274	3190
55°	3186	3092	3012
60°	2987	2885	2799
65°	2732	2623	2534
70°	2392	2290	2234
75°	1934	1892	1830
80°	1379	1364	1317
85°	772	834	834



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.1	3.9
10°-20°	416.9	11.0
20°-30°	610.2	16.1
30°-40°	702.8	18.5
40°-50°	692.6	18.2
50°-60°	589.3	15.5
60°-70°	409.5	10.8
70°-80°	194.1	5.1
80°-90°	36.6	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°	1175.2	30.9
0°-40°	1878.0	49.4
0°-60°	3159.9	83.2
0°-90°	3800.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3800.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1571	1571	1571	1571	1571	
5°	1571	1555	1566	1561	1555	149
15°	1492	1478	1485	1478	1470	420
25°	1344	1330	1330	1315	1309	619
35°	1146	1134	1126	1110	1104	716
45°	920	910	899	883	879	709
55°	679	671	659	646	642	607
65°	429	424	412	403	398	424
75°	186	185	182	175	176	200
85°	25	27	27	27	27	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1571	1571	1571	1571	1571
2.5°	1578	1562	1574	1569	1559
5°	1571	1555	1566	1561	1555
7.5°	1558	1543	1554	1549	1542
10°	1541	1526	1536	1529	1522
12.5°	1518	1504	1513	1505	1499
15°	1492	1478	1485	1478	1470
17.5°	1461	1447	1453	1445	1435
20°	1426	1411	1416	1405	1399
22.5°	1387	1373	1375	1361	1355
25°	1344	1330	1330	1315	1309
27.5°	1299	1285	1284	1267	1260
30°	1251	1237	1233	1217	1210
32.5°	1199	1186	1182	1165	1158
35°	1146	1134	1126	1110	1104
37.5°	1091	1080	1071	1055	1049
40°	1035	1025	1016	998	993
42.5°	978	968	958	942	936
45°	920	910	899	883	879
47.5°	860	851	840	825	820
50°	800	793	782	766	762
52.5°	740	732	720	707	702
55°	679	671	659	646	642
57.5°	617	610	599	587	583
60°	555	548	536	525	520
62.5°	492	485	474	464	462
65°	429	424	412	403	398
67.5°	366	362	352	344	345
70°	304	301	291	285	284
72.5°	243	242	235	230	227
75°	186	185	182	175	176
77.5°	134	134	132	126	127
80°	89	90	88	85	85
82.5°	52	54	53	51	51
85°	25	27	27	27	27
87.5°	8	11	12	13	14
90°	0	0	0	0	0

(END OF REPORT)