

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: P26424

Luminaire Tested: **ORM-G-24-4-LD4-6STD-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: P26424
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-LD4-6STD-40-UNV-ASYMMRFI-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

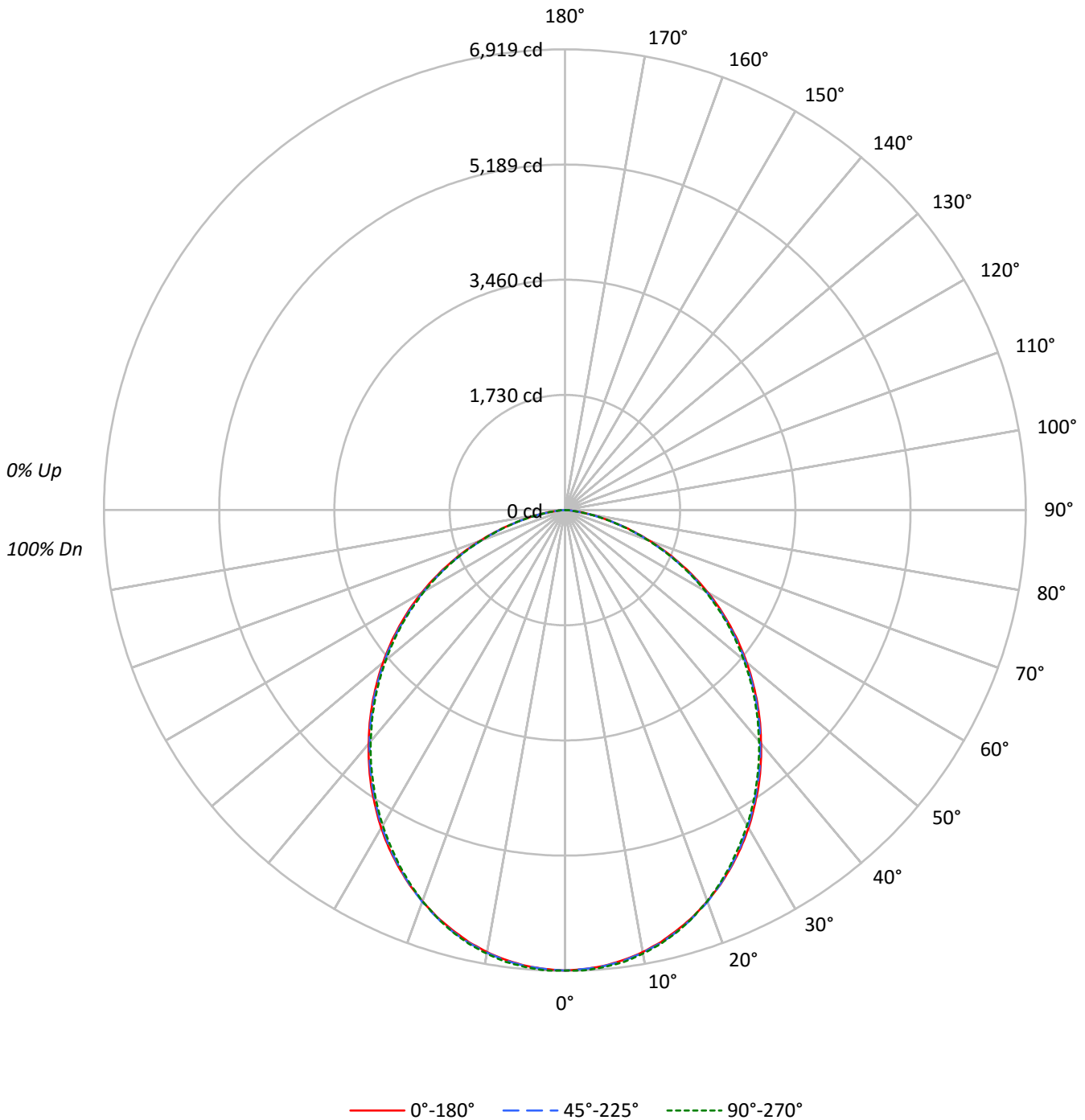
Lumens per Lamp: N/A
Luminaire Lumens: 17100.1 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.3
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 213.4
Input Voltage (V): 120.00
Input Current (Ain): 1.7817
Voltage Rise (V): NR
Power Factor: 0.9986
Total Harmonic Distortion (THDi): 3.14%
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	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°	9304	9304	9304
5°	9276	9282	9300
10°	9208	9218	9239
15°	9092	9120	9125
20°	8952	8962	8946
25°	8774	8758	8729
30°	8567	8529	8495
35°	8321	8280	8237
40°	8048	8013	7965
45°	7769	7727	7668
50°	7462	7406	7343
55°	7105	7037	6983
60°	6682	6588	6547
65°	6116	6011	5995
70°	5370	5268	5264
75°	4336	4294	4299
80°	3123	3053	3068
85°	1683	1667	1652



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	652.3	3.8
10°-20°	1843.1	10.8
20°-30°	2715.9	15.9
30°-40°	3152.5	18.4
40°-50°	3129.4	18.3
50°-60°	2681.8	15.7
60°-70°	1876.5	11.0
70°-80°	891.9	5.2
80°-90°	156.7	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°	5211.3	30.5
0°-40°	8363.7	48.9
0°-60°	14174.9	82.9
0°-90°	17100.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	17100.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6915	6915	6915	6915	6915	
5°	6868	6860	6872	6892	6886	651
15°	6527	6524	6547	6555	6551	1840
25°	5910	5901	5899	5897	5880	2722
35°	5066	5065	5041	5025	5015	3167
45°	4083	4085	4061	4033	4030	3149
55°	3029	3034	3000	2972	2977	2708
65°	1921	1922	1888	1878	1883	1901
75°	834	841	826	824	827	900
85°	109	111	108	110	107	158
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6915	6915	6915	6915	6915
2.5°	6898	6889	6898	6924	6919
5°	6868	6860	6872	6892	6886
7.5°	6812	6810	6822	6837	6843
10°	6740	6735	6747	6768	6762
12.5°	6646	6644	6658	6675	6670
15°	6527	6524	6547	6555	6551
17.5°	6400	6395	6409	6420	6408
20°	6252	6246	6259	6263	6248
22.5°	6093	6084	6088	6087	6072
25°	5910	5901	5899	5897	5880
27.5°	5720	5717	5704	5695	5675
30°	5514	5503	5490	5479	5468
32.5°	5291	5289	5272	5257	5247
35°	5066	5065	5041	5025	5015
37.5°	4830	4823	4807	4785	4780
40°	4582	4583	4562	4541	4535
42.5°	4337	4336	4316	4287	4284
45°	4083	4085	4061	4033	4030
47.5°	3825	3825	3801	3771	3772
50°	3565	3566	3538	3508	3508
52.5°	3301	3307	3271	3241	3243
55°	3029	3034	3000	2972	2977
57.5°	2759	2761	2723	2699	2705
60°	2483	2478	2448	2424	2433
62.5°	2203	2198	2168	2156	2157
65°	1921	1922	1888	1878	1883
67.5°	1643	1638	1611	1597	1608
70°	1365	1361	1339	1334	1338
72.5°	1098	1099	1074	1072	1076
75°	834	841	826	824	827
77.5°	602	609	597	598	597
80°	403	403	394	395	396
82.5°	233	235	230	233	230
85°	109	111	108	110	107
87.5°	36	37	36	36	34
90°	0	0	0	0	0

(END OF REPORT)