

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: P26477

Luminaire Tested: **ORM-G-12-4-LD4-3STD-40-UNV-ASYSYMRFI-ED**

Issue Date: 3/3/2020

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: P26477
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: ORM-G-12-4-LD4-3STD-40-UNV-ASYSMRFI-ED
Description: FAILSAFE RECESSED OPERATING ROOM FIXTURE
Light Source: (252) ULM2.0 4000K LEDS
2UT217042A8404A
Ballast/Driver: (2) OSRAM ELECTRONIC DRIVER
(1) OTI85W (1) 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

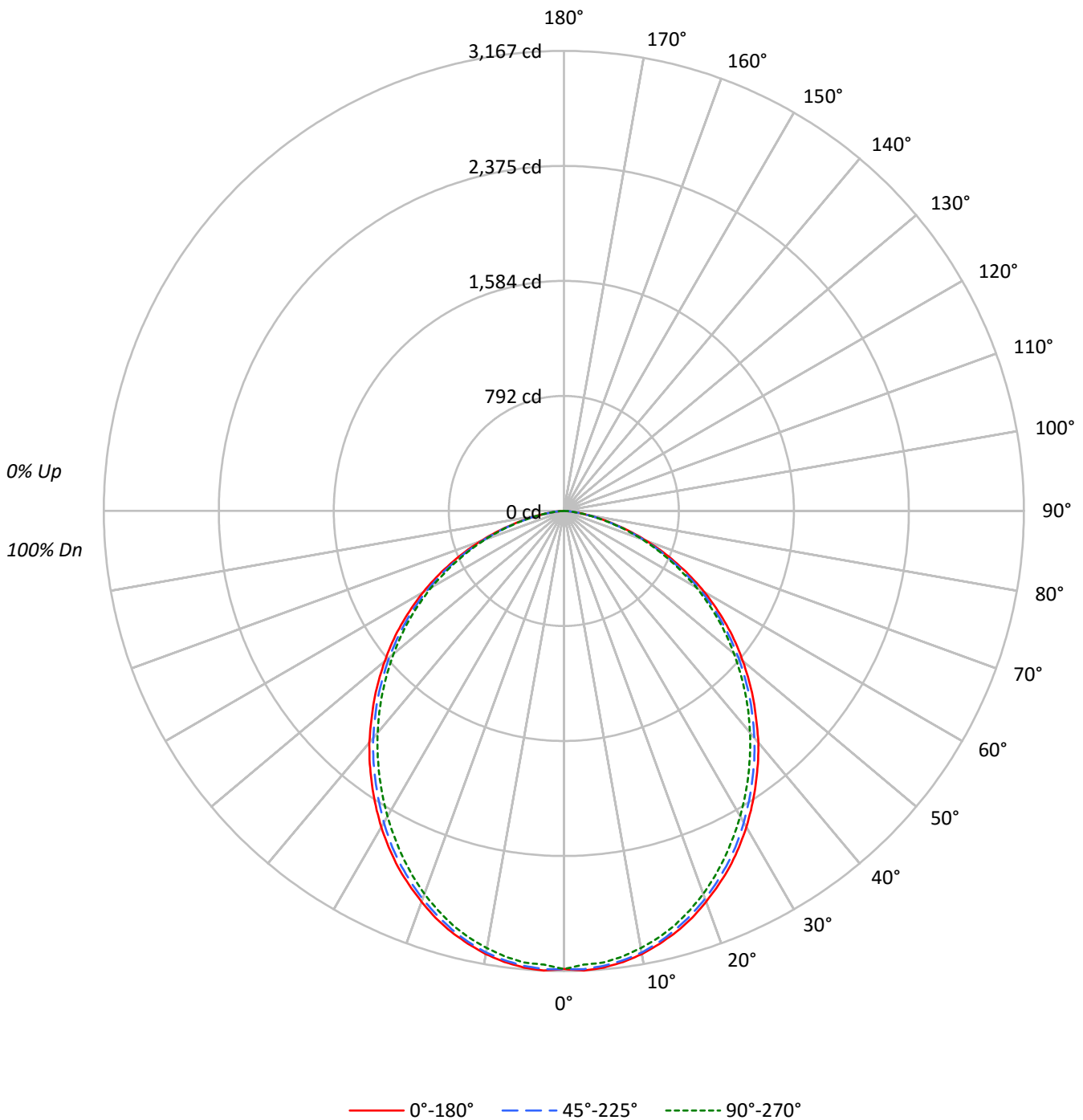
Lumens per Lamp: N/A
Luminaire Lumens: 7643.3 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.16 / 1.28
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 104.8
Input Voltage (V): 120.04
Input Current (A_{in}): 0.87439
Voltage Rise (V): NR
Power Factor: 0.9985
Total Harmonic Distortion (THDi): 2.55%
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	74	69	65	72	68	64	62
4	84	73	64	58	82	71	64	57	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	40	35	47	40	35	46	39	35	45	39	34	32
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	28	38	33	28	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8485	8485	8485
5°	8522	8490	8428
10°	8463	8432	8348
15°	8355	8305	8224
20°	8199	8139	8033
25°	8026	7940	7797
30°	7809	7697	7544
35°	7562	7431	7276
40°	7317	7170	7005
45°	7033	6877	6713
50°	6736	6564	6401
55°	6418	6216	6066
60°	6012	5813	5662
65°	5489	5291	5151
70°	4823	4634	4556
75°	3920	3785	3722
80°	2805	2727	2696
85°	1575	1667	1667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	297.3	3.9
10°-20°	837.0	11.0
20°-30°	1225.0	16.0
30°-40°	1411.5	18.5
40°-50°	1392.3	18.2
50°-60°	1186.2	15.5
60°-70°	826.3	10.8
70°-80°	393.9	5.2
80°-90°	73.8	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°	2359.3	30.9
0°-40°	3770.7	49.3
0°-60°	6349.3	83.1
0°-90°	7643.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7643.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3153	3153	3153	3153	3153	
5°	3155	3125	3143	3131	3120	299
15°	2999	2968	2981	2966	2952	845
25°	2703	2669	2674	2638	2626	1244
35°	2302	2280	2262	2228	2215	1440
45°	1848	1832	1807	1776	1764	1425
55°	1368	1352	1325	1304	1293	1221
65°	862	850	831	818	809	854
75°	377	378	364	359	358	405
85°	51	55	54	54	54	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3153	3153	3153	3153	3153
2.5°	3167	3139	3157	3147	3126
5°	3155	3125	3143	3131	3120
7.5°	3131	3100	3120	3108	3094
10°	3097	3064	3086	3067	3055
12.5°	3051	3019	3039	3020	3009
15°	2999	2968	2981	2966	2952
17.5°	2937	2908	2915	2899	2882
20°	2863	2836	2842	2816	2805
22.5°	2785	2755	2760	2729	2720
25°	2703	2669	2674	2638	2626
27.5°	2611	2578	2580	2544	2528
30°	2513	2485	2477	2441	2428
32.5°	2409	2383	2370	2335	2323
35°	2302	2280	2262	2228	2215
37.5°	2194	2171	2153	2120	2106
40°	2083	2059	2041	2004	1994
42.5°	1962	1945	1924	1896	1880
45°	1848	1832	1807	1776	1764
47.5°	1728	1716	1687	1661	1646
50°	1609	1594	1568	1544	1529
52.5°	1490	1472	1447	1424	1412
55°	1368	1352	1325	1304	1293
57.5°	1242	1228	1203	1183	1172
60°	1117	1105	1080	1061	1052
62.5°	990	977	956	940	925
65°	862	850	831	818	809
67.5°	737	731	709	699	690
70°	613	607	589	581	579
72.5°	492	487	474	467	466
75°	377	378	364	359	358
77.5°	272	274	264	261	259
80°	181	184	176	173	174
82.5°	107	110	105	105	104
85°	51	55	54	54	54
87.5°	17	22	23	24	25
90°	0	0	0	0	0

(END OF REPORT)