

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: P34264

Luminaire Tested: **MNAE-G-48-LD4-AMB/STD-40**

Test Date: 07/30/15

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: P34264
Test Lab: INNOVATION CENTER-P3
Test Date: 07/30/15
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: MNAE-G-48-LD4-AMB/STD-40
Description: FAILSAFE MNAE 4' RECESSED LED FIXTURE WITH A STANDARD AMBIENT LIGHT LEVEL
Light Source: (84) COOPER LIGHTING 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

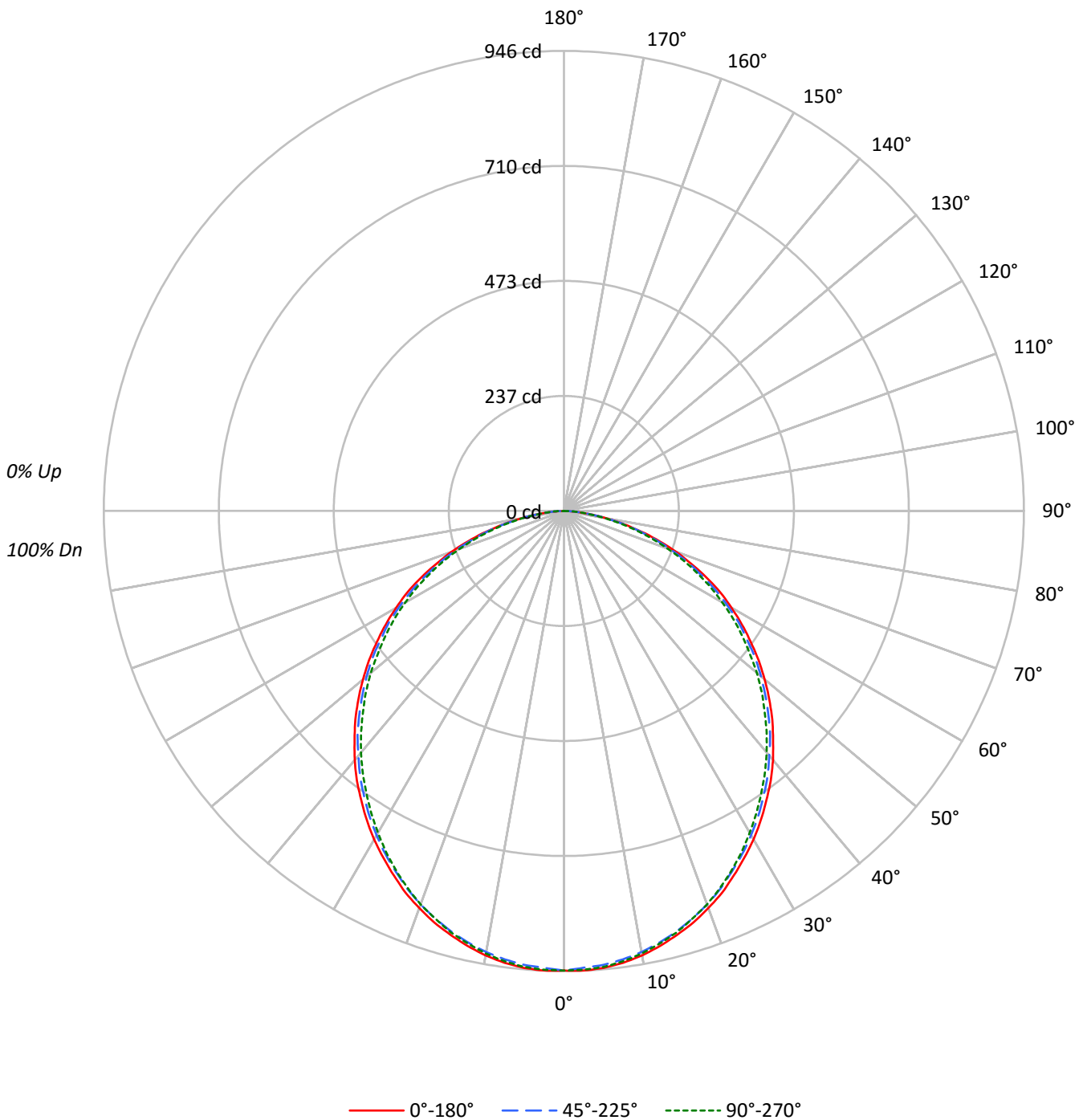
Lumens per Lamp: N/A
Luminaire Lumens: 2561.8 lumens
Efficiency: N/A
Efficacy: 74.9 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.21 / 1.34
Luminous Opening: Rectangular (W 0.38' x L: 3.67' x H: 0')
CIE Type: Direct

Input Watts (W): 34.2
Input Voltage (V): 120.0
Input Current (A_{in}): 0.286
Voltage Rise (V): NR
Power Factor: 0.9982
Total Harmonic Distortion (THDi): 7.61%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 13 HR
Ambient Temperature (°C): 25.0
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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	76	72	70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	65	58	53	62	57	53	51
5	76	63	54	48	74	62	54	47	60	53	47	58	52	46	56	51	46	44
6	70	57	48	42	68	56	48	42	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	33	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7398	7398	7398
5°	7410	7363	7395
10°	7377	7321	7345
15°	7310	7253	7270
20°	7239	7173	7173
25°	7143	7066	7048
30°	7051	6960	6906
35°	6938	6843	6766
40°	6837	6714	6632
45°	6709	6587	6465
50°	6564	6443	6309
55°	6401	6265	6114
60°	6231	6075	5887
65°	6002	5779	5613
70°	5631	5425	5219
75°	5021	4870	4658
80°	4147	4057	3922
85°	2695	2964	2964



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.3	3.5
10°-20°	253.4	9.9
20°-30°	378.3	14.8
30°-40°	448.9	17.5
40°-50°	459.6	17.9
50°-60°	411.3	16.1
60°-70°	309.7	12.1
70°-80°	170.5	6.7
80°-90°	40.8	1.6
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°	721.0	28.1
0°-40°	1169.9	45.7
0°-60°	2040.8	79.7
0°-90°	2561.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2561.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	945	945	945	945	945	
5°	943	941	937	942	941	90
15°	902	901	895	899	897	255
25°	827	826	818	820	816	381
35°	726	724	716	712	708	455
45°	606	605	595	588	584	467
55°	469	470	459	452	448	420
65°	324	321	312	306	303	320
75°	166	165	161	157	154	176
85°	30	33	33	33	33	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	945	945	945	945	945
2.5°	946	945	940	946	944
5°	943	941	937	942	941
7.5°	937	935	930	935	934
10°	928	927	921	925	924
12.5°	916	915	909	913	911
15°	902	901	895	899	897
17.5°	887	885	879	882	879
20°	869	867	861	863	861
22.5°	850	847	841	842	839
25°	827	826	818	820	816
27.5°	804	802	795	794	791
30°	780	778	770	768	764
32.5°	754	753	744	740	737
35°	726	724	716	712	708
37.5°	699	696	688	683	679
40°	669	667	657	652	649
42.5°	637	636	628	621	617
45°	606	605	595	588	584
47.5°	573	573	562	555	552
50°	539	539	529	522	518
52.5°	505	506	496	488	482
55°	469	470	459	452	448
57.5°	434	434	426	416	413
60°	398	396	388	380	376
62.5°	363	359	351	345	341
65°	324	321	312	306	303
67.5°	283	281	275	269	266
70°	246	242	237	230	228
72.5°	206	204	198	193	191
75°	166	165	161	157	154
77.5°	128	128	126	121	119
80°	92	92	90	87	87
82.5°	60	58	59	57	57
85°	30	33	33	33	33
87.5°	10	14	15	16	16
90°	0	0	0	0	0

(END OF REPORT)