

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: P307604

Luminaire Tested: **14FCZ2-25-UNV-L82765-CP250-W2A-U-4000K**

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: P307604
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-25-UNV-L82765-CP250-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 4000K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
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: 2172.0 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

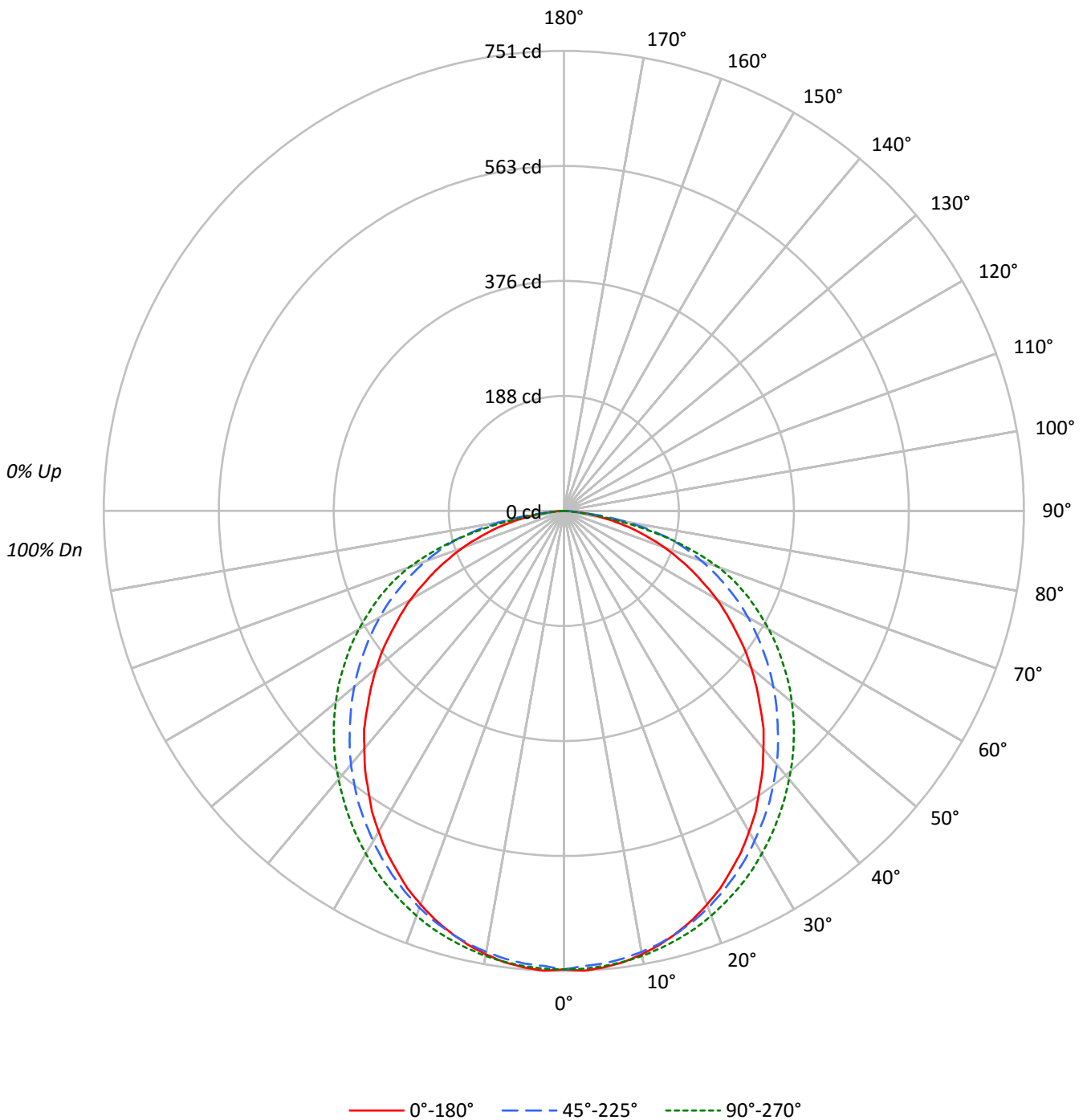
Input Watts (W): 19.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2014	2014	2014
5°	2020	2003	2015
10°	2008	1997	2015
15°	1986	1987	2014
20°	1957	1974	2014
25°	1920	1954	2012
30°	1878	1934	2008
35°	1828	1917	2006
40°	1780	1899	2009
45°	1725	1878	2020
50°	1675	1869	2034
55°	1611	1863	2052
60°	1553	1866	2080
65°	1474	1872	2113
70°	1383	1886	2111
75°	1254	1904	1909
80°	1029	1644	1359
85°	763	778	315



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.8	3.3
10°-20°	202.3	9.3
20°-30°	304.7	14.0
30°-40°	365.6	16.8
40°-50°	381.1	17.5
50°-60°	352.8	16.2
60°-70°	285.0	13.1
70°-80°	173.8	8.0
80°-90°	35.9	1.7
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°	577.8	26.6
0°-40°	943.4	43.4
0°-60°	1677.3	77.2
0°-90°	2172.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2172.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	748	748	748	748	748	
5°	748	746	742	747	746	71
15°	713	713	713	723	723	201
25°	647	650	658	675	678	298
35°	556	565	584	605	611	349
45°	453	467	494	521	531	350
55°	343	361	397	428	437	308
65°	232	254	294	324	332	229
75°	121	147	183	186	184	127
85°	25	37	25	14	10	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	748.3	748.3	748.3	748.3	748.3
2.5°	751.2	748.7	743.4	748.7	747.8
5°	747.8	745.8	741.5	746.8	745.8
7.5°	742.9	741.0	737.1	743.4	742.4
10°	734.7	733.7	730.8	738.1	737.6
12.5°	725.0	724.5	723.1	731.3	730.8
15°	712.9	713.4	713.4	723.1	723.1
17.5°	699.3	700.3	702.3	712.9	714.4
20°	683.4	685.3	689.2	701.3	703.2
22.5°	666.9	668.3	674.2	688.7	690.6
25°	646.6	650.4	658.2	674.6	677.6
27.5°	627.2	630.6	641.2	658.2	663.0
30°	604.4	609.7	622.3	640.7	646.1
32.5°	582.6	588.4	603.0	624.3	629.1
35°	556.5	565.2	583.6	604.9	610.7
37.5°	532.7	541.0	561.8	585.0	591.8
40°	506.6	516.8	540.5	565.2	572.0
42.5°	482.4	492.1	517.7	542.9	552.1
45°	453.3	466.9	493.5	521.1	530.8
47.5°	426.7	440.2	470.8	500.3	509.0
50°	400.0	414.6	446.5	477.0	485.8
52.5°	372.4	387.9	422.3	452.8	463.0
55°	343.4	361.3	397.1	428.1	437.3
57.5°	315.8	334.2	372.4	403.9	413.1
60°	288.6	307.5	346.8	376.8	386.5
62.5°	258.6	280.9	321.6	351.1	358.4
65°	231.5	254.3	294.0	323.5	331.8
67.5°	202.9	227.6	267.3	294.5	302.2
70°	175.8	201.5	239.7	264.9	268.3
72.5°	146.7	172.9	211.6	227.6	227.6
75°	120.6	147.2	183.1	186.0	183.6
77.5°	92.0	121.6	144.8	139.0	133.2
80°	66.4	95.4	106.1	95.4	87.7
82.5°	44.6	69.3	63.9	50.9	45.0
85°	24.7	36.8	25.2	14.0	10.2
87.5°	9.2	8.2	2.4	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)