

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: P312200

Luminaire Tested: **14FCZ2-29-UNV-L83050-CP125-W2A-U-3000K**

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: P312200
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: 14FCZ2-29-UNV-L83050-CP125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 3000K 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: 2587.0 lumens
Efficiency: N/A
Efficacy: 108.7 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

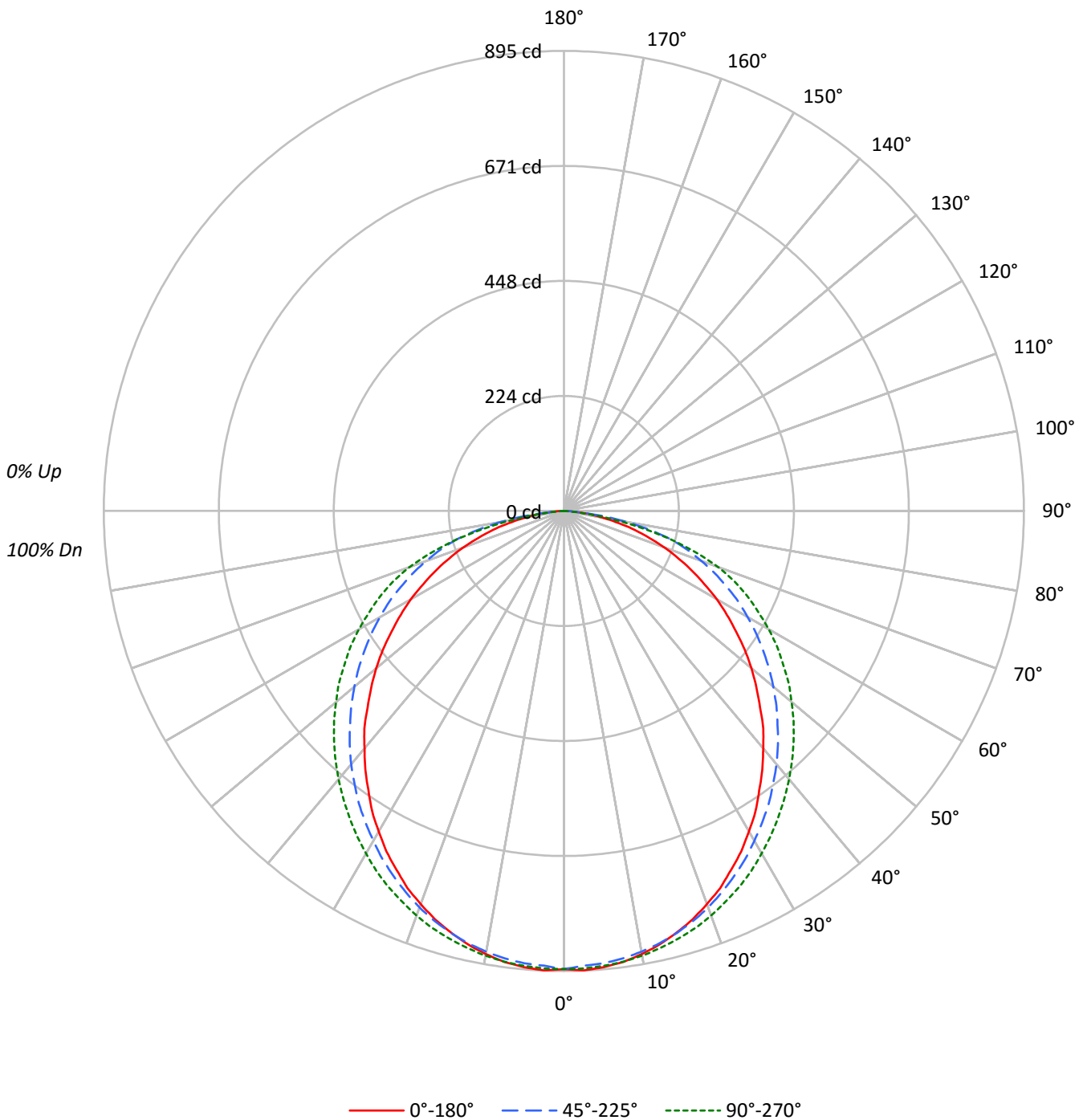
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2398	2398	2398
5°	2406	2386	2400
10°	2391	2379	2400
15°	2366	2367	2399
20°	2331	2351	2399
25°	2287	2328	2396
30°	2237	2303	2391
35°	2177	2283	2390
40°	2120	2262	2393
45°	2055	2237	2406
50°	1995	2227	2422
55°	1919	2219	2444
60°	1850	2223	2477
65°	1755	2229	2516
70°	1648	2246	2515
75°	1493	2267	2273
80°	1224	1957	1618
85°	908	926	374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.3	3.3
10°-20°	240.9	9.3
20°-30°	362.9	14.0
30°-40°	435.5	16.8
40°-50°	453.9	17.5
50°-60°	420.2	16.2
60°-70°	339.5	13.1
70°-80°	207.0	8.0
80°-90°	42.7	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°	688.1	26.6
0°-40°	1123.6	43.4
0°-60°	1997.8	77.2
0°-90°	2587.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2587.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	891	891	891	891	891	
5°	891	888	883	890	888	85
15°	849	850	850	861	861	239
25°	770	775	784	804	807	355
35°	663	673	695	720	727	415
45°	540	556	588	621	632	417
55°	409	430	473	510	521	366
65°	276	303	350	385	395	273
75°	144	175	218	222	219	151
85°	29	44	30	17	12	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	891.2	891.2	891.2	891.2	891.2
2.5°	894.7	891.8	885.5	891.8	890.7
5°	890.7	888.3	883.2	889.5	888.3
7.5°	884.9	882.6	878.0	885.5	884.3
10°	875.1	873.9	870.5	879.1	878.5
12.5°	863.5	863.0	861.2	871.0	870.5
15°	849.1	849.7	849.7	861.2	861.2
17.5°	833.0	834.1	836.4	849.1	850.9
20°	813.9	816.2	820.9	835.3	837.6
22.5°	794.3	796.1	803.0	820.3	822.6
25°	770.1	774.7	783.9	803.5	807.0
27.5°	747.0	751.1	763.7	783.9	789.7
30°	719.9	726.3	741.2	763.2	769.5
32.5°	693.9	700.9	718.2	743.6	749.3
35°	662.8	673.2	695.1	720.5	727.4
37.5°	634.5	644.3	669.1	696.8	704.9
40°	603.4	615.5	643.8	673.2	681.3
42.5°	574.5	586.1	616.7	646.6	657.6
45°	539.9	556.1	587.8	620.7	632.2
47.5°	508.2	524.4	560.7	595.9	606.3
50°	476.5	493.8	531.9	568.2	578.6
52.5°	443.6	462.1	503.0	539.4	551.5
55°	409.0	430.3	473.0	509.9	520.9
57.5°	376.1	398.0	443.6	481.1	492.1
60°	343.8	366.3	413.0	448.8	460.3
62.5°	308.0	334.6	383.0	418.2	426.9
65°	275.7	302.8	350.1	385.3	395.1
67.5°	241.7	271.1	318.4	350.7	360.0
70°	209.4	240.0	285.5	315.5	319.6
72.5°	174.8	205.9	252.1	271.1	271.1
75°	143.6	175.4	218.0	221.5	218.6
77.5°	109.6	144.8	172.5	165.6	158.6
80°	79.0	113.6	126.3	113.6	104.4
82.5°	53.1	82.5	76.1	60.6	53.6
85°	29.4	43.8	30.0	16.7	12.1
87.5°	11.0	9.8	2.9	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)