

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: P312107

Luminaire Tested: **14FCZ2-39-UNV-L83050-RDP-CP187-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: P312107  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-39-UNV-L83050-RDP-CP187-W2A-U-4000K  
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.187" 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**

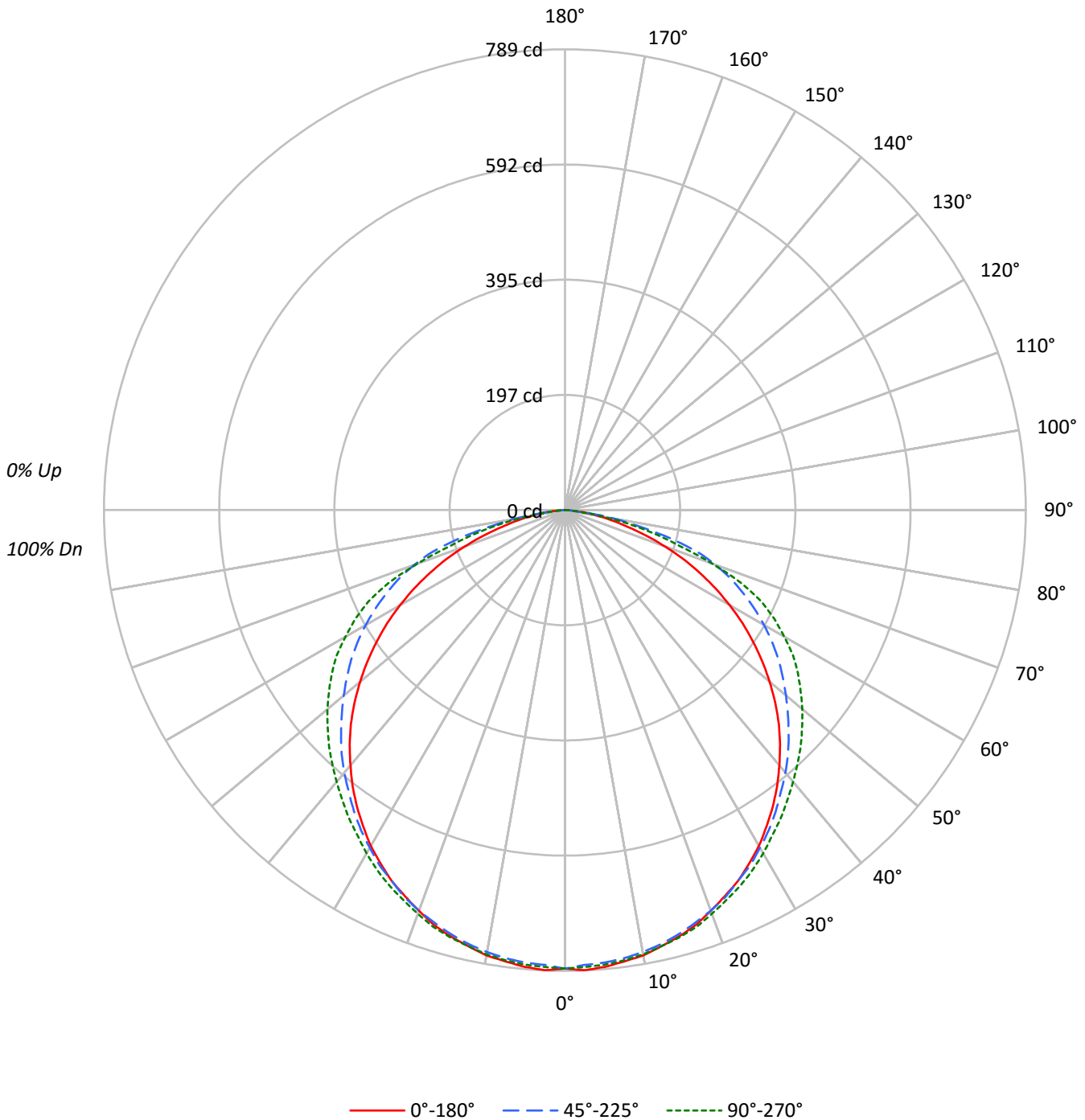
Lumens per Lamp: N/A  
Luminaire Lumens: 2344.0 lumens  
Efficiency: N/A  
Efficacy: 68.7 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	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	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2113	2113	2113
5°	2121	2101	2111
10°	2115	2100	2110
15°	2106	2095	2111
20°	2091	2091	2107
25°	2081	2081	2108
30°	2064	2075	2110
35°	2038	2068	2116
40°	2006	2063	2134
45°	1971	2062	2173
50°	1915	2069	2222
55°	1846	2095	2284
60°	1753	2117	2334
65°	1620	2144	2365
70°	1440	2160	2116
75°	1160	1941	1694
80°	908	1361	1106
85°	621	395	281



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.3	3.2
10°-20°	213.2	9.1
20°-30°	324.6	13.8
30°-40°	395.4	16.9
40°-50°	419.5	17.9
50°-60°	395.9	16.9
60°-70°	319.7	13.6
70°-80°	173.4	7.4
80°-90°	28.1	1.2
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°	612.1	26.1
0°-40°	1007.5	43.0
0°-60°	1822.9	77.8
0°-90°	2344.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2344.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	785	785	785	785	785	
5°	785	783	778	783	781	75
15°	756	754	752	758	758	213
25°	701	699	701	708	710	323
35°	620	624	630	642	644	388
45°	518	525	542	562	571	399
55°	393	410	446	476	487	351
65°	254	286	337	364	372	252
75°	112	163	187	168	163	122
85°	20	22	13	11	9	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	785.1	785.1	785.1	785.1	785.1
2.5°	788.7	785.1	779.6	785.1	783.2
5°	785.1	783.2	777.7	783.2	781.4
7.5°	779.6	779.6	774.1	777.7	777.7
10°	774.1	772.3	768.6	774.1	772.3
12.5°	764.9	763.1	761.3	766.8	764.9
15°	755.8	754.0	752.1	757.6	757.6
17.5°	744.8	743.0	741.1	748.5	748.5
20°	730.2	730.2	730.2	737.5	735.7
22.5°	715.5	715.5	717.4	724.7	722.8
25°	700.9	699.1	700.9	708.2	710.0
27.5°	682.6	684.4	686.2	693.6	695.4
30°	664.3	666.1	667.9	677.1	678.9
32.5°	642.3	646.0	649.6	660.6	660.6
35°	620.4	624.0	629.5	642.3	644.2
37.5°	596.6	600.2	607.6	622.2	625.9
40°	571.0	576.4	587.4	602.1	607.6
42.5°	545.3	552.7	565.5	581.9	589.3
45°	517.9	525.2	541.7	561.8	571.0
47.5°	488.6	497.8	517.9	543.5	550.8
50°	457.5	470.3	494.1	521.5	530.7
52.5°	426.4	441.0	470.3	499.6	508.7
55°	393.4	409.9	446.5	475.8	486.8
57.5°	360.5	378.8	420.9	452.0	463.0
60°	325.7	347.7	393.4	424.6	433.7
62.5°	291.0	316.6	366.0	397.1	404.4
65°	254.4	285.5	336.7	364.2	371.5
67.5°	219.6	256.2	307.4	327.6	327.6
70°	183.0	223.3	274.5	280.0	269.0
72.5°	146.4	192.1	237.9	217.8	208.6
75°	111.6	162.9	186.7	168.4	162.9
77.5°	84.2	131.8	131.8	120.8	117.1
80°	58.6	100.6	87.8	76.9	71.4
82.5°	38.4	56.7	45.7	36.6	31.1
85°	20.1	22.0	12.8	11.0	9.1
87.5°	7.3	3.7	1.8	3.7	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)