

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: P307730

Luminaire Tested: **14FCZ2-39-UNV-L82765-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: P307730  
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: 14FCZ2-39-UNV-L82765-CP187-W2A-U-4000K  
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 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**

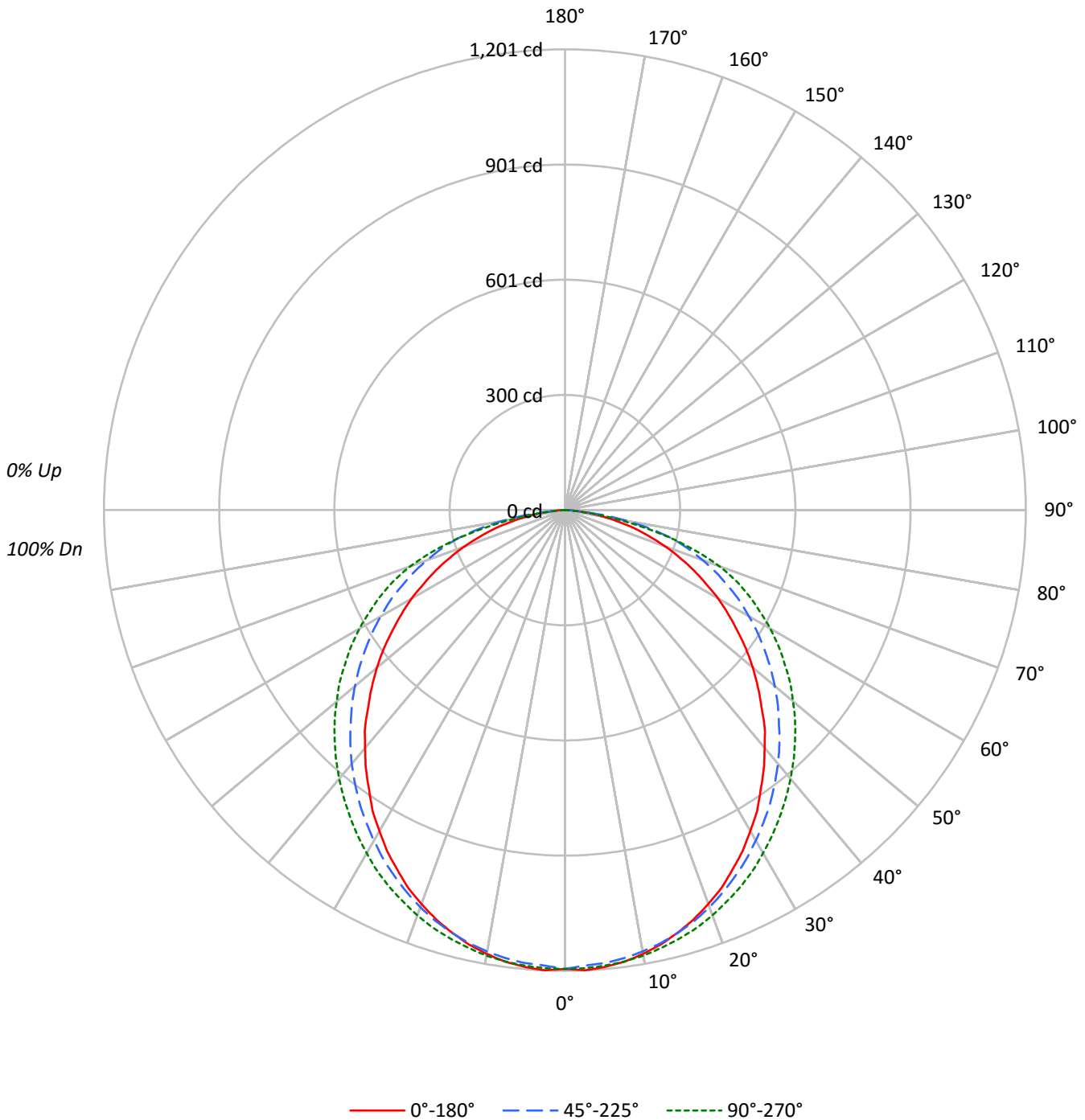
Lumens per Lamp: N/A  
Luminaire Lumens: 3472.0 lumens  
Efficiency: N/A  
Efficacy: 103.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	3219	3219	3219
5°	3229	3202	3220
10°	3209	3192	3222
15°	3175	3177	3220
20°	3128	3155	3219
25°	3069	3124	3216
30°	3002	3091	3209
35°	2922	3065	3207
40°	2845	3035	3212
45°	2758	3002	3229
50°	2677	2988	3251
55°	2575	2978	3280
60°	2483	2983	3325
65°	2357	2992	3377
70°	2211	3015	3375
75°	2005	3042	3051
80°	1644	2627	2171
85°	1220	1244	503



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.2	3.3
10°-20°	323.3	9.3
20°-30°	487.1	14.0
30°-40°	584.5	16.8
40°-50°	609.2	17.5
50°-60°	564.0	16.2
60°-70°	455.7	13.1
70°-80°	277.8	8.0
80°-90°	57.4	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°	923.6	26.6
0°-40°	1508.0	43.4
0°-60°	2681.2	77.2
0°-90°	3472.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3472.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1196	1196	1196	1196	1196	
5°	1195	1192	1185	1194	1192	113
15°	1140	1140	1140	1156	1156	321
25°	1034	1040	1052	1078	1083	476
35°	890	904	933	967	976	557
45°	725	746	789	833	848	560
55°	549	578	635	684	699	492
65°	370	406	470	517	530	366
75°	193	235	293	297	293	202
85°	40	59	40	22	16	49
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1196.1	1196.1	1196.1	1196.1	1196.1
2.5°	1200.8	1196.9	1188.4	1196.9	1195.3
5°	1195.3	1192.2	1185.3	1193.8	1192.2
7.5°	1187.6	1184.5	1178.3	1188.4	1186.8
10°	1174.4	1172.9	1168.2	1179.9	1179.1
12.5°	1159.0	1158.2	1155.9	1169.0	1168.2
15°	1139.6	1140.4	1140.4	1155.9	1155.9
17.5°	1117.9	1119.5	1122.6	1139.6	1141.9
20°	1092.4	1095.5	1101.7	1121.0	1124.1
22.5°	1066.1	1068.4	1077.7	1100.9	1104.0
25°	1033.5	1039.7	1052.1	1078.4	1083.1
27.5°	1002.6	1008.0	1025.0	1052.1	1059.9
30°	966.2	974.7	994.8	1024.2	1032.8
32.5°	931.3	940.6	963.9	997.9	1005.7
35°	889.5	903.5	932.9	967.0	976.2
37.5°	851.6	864.8	898.1	935.2	946.1
40°	809.8	826.1	864.0	903.5	914.3
42.5°	771.1	786.6	827.6	867.9	882.6
45°	724.6	746.3	788.9	833.0	848.5
47.5°	682.1	703.7	752.5	799.7	813.7
50°	639.5	662.7	713.8	762.6	776.5
52.5°	595.3	620.1	675.1	723.9	740.1
55°	548.9	577.5	634.8	684.4	699.1
57.5°	504.8	534.2	595.3	645.7	660.4
60°	461.4	491.6	554.3	602.3	617.8
62.5°	413.4	449.0	514.1	561.3	572.9
65°	370.1	406.4	469.9	517.2	530.3
67.5°	324.4	363.9	427.3	470.7	483.1
70°	281.0	322.1	383.2	423.5	428.9
72.5°	234.6	276.4	338.3	363.9	363.9
75°	192.8	235.4	292.6	297.3	293.4
77.5°	147.1	194.3	231.5	222.2	212.9
80°	106.1	152.5	169.5	152.5	140.1
82.5°	71.2	110.7	102.2	81.3	72.0
85°	39.5	58.8	40.3	22.5	16.3
87.5°	14.7	13.2	3.9	3.9	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)