

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: P307596

Luminaire Tested: **14FCZ2-25-UNV-L82765-CP187-W2A-U-4500K**

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: P307596  
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-CP187-W2A-U-4500K  
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET  
Light Source: (168) 4500K 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**

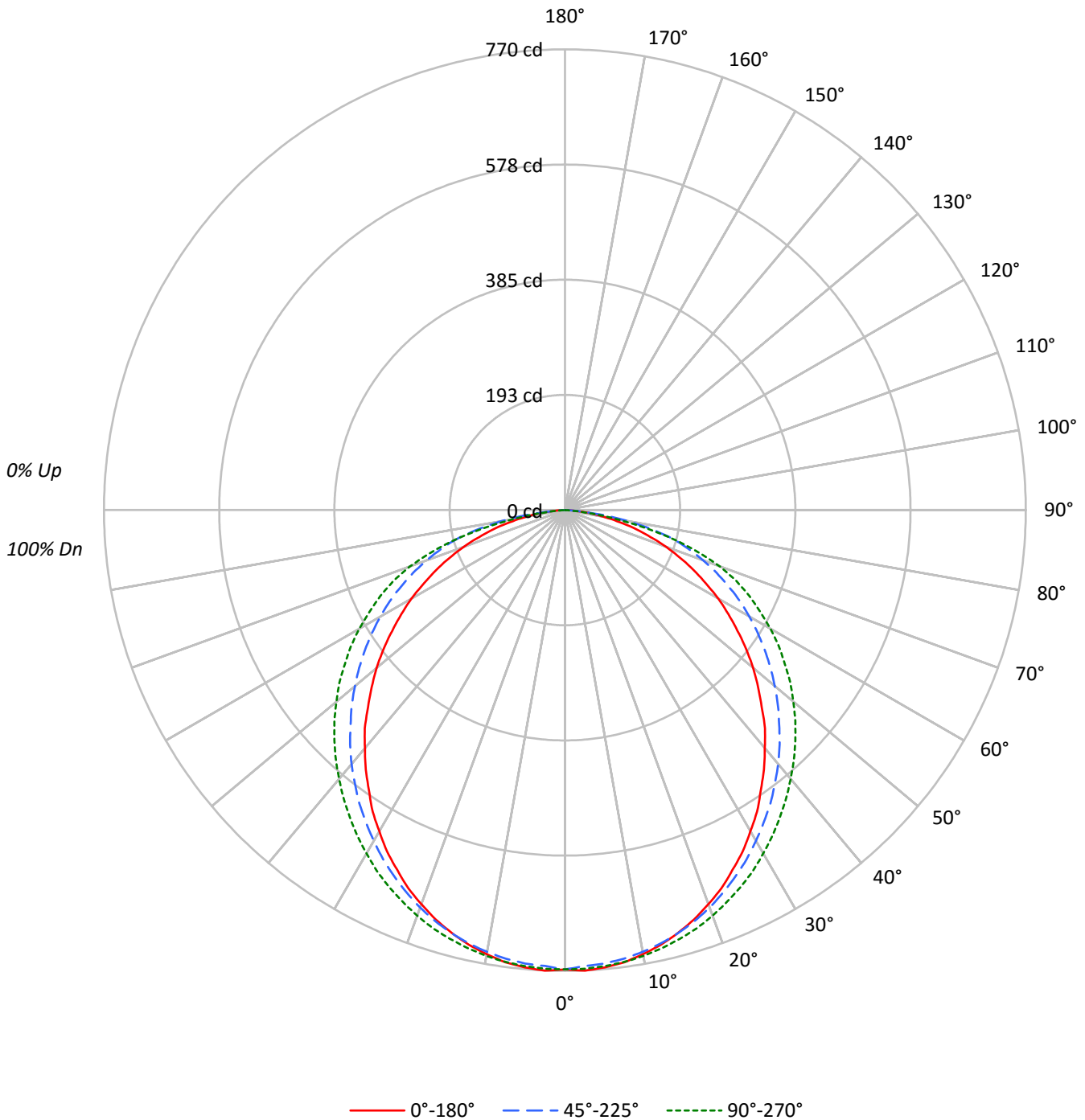
Lumens per Lamp: N/A  
Luminaire Lumens: 2228.0 lumens  
Efficiency: N/A  
Efficacy: 111.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	2066	2066	2066
5°	2072	2055	2067
10°	2059	2049	2067
15°	2037	2039	2066
20°	2007	2024	2066
25°	1969	2004	2064
30°	1927	1984	2059
35°	1875	1966	2058
40°	1826	1948	2061
45°	1770	1926	2072
50°	1718	1917	2086
55°	1652	1911	2105
60°	1594	1914	2133
65°	1512	1920	2167
70°	1419	1935	2165
75°	1286	1953	1958
80°	1055	1686	1393
85°	781	797	321



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.6	3.3
10°-20°	207.5	9.3
20°-30°	312.5	14.0
30°-40°	375.1	16.8
40°-50°	390.9	17.5
50°-60°	361.9	16.2
60°-70°	292.4	13.1
70°-80°	178.3	8.0
80°-90°	36.8	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°	592.7	26.6
0°-40°	967.7	43.4
0°-60°	1720.5	77.2
0°-90°	2228.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2228.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	767	765	761	766	765	73
15°	731	732	732	742	742	206
25°	663	667	675	692	695	306
35°	571	580	599	620	626	358
45°	465	479	506	535	544	359
55°	352	371	407	439	449	316
65°	238	261	302	332	340	235
75°	124	151	188	191	188	130
85°	25	38	26	14	10	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	767.6	767.6	767.6	767.6	767.6
2.5°	770.5	768.1	762.6	768.1	767.1
5°	767.1	765.1	760.6	766.1	765.1
7.5°	762.1	760.1	756.1	762.6	761.6
10°	753.6	752.6	749.7	757.1	756.6
12.5°	743.7	743.2	741.7	750.2	749.7
15°	731.3	731.8	731.8	741.7	741.7
17.5°	717.4	718.4	720.4	731.3	732.8
20°	701.0	703.0	706.9	719.4	721.4
22.5°	684.1	685.6	691.5	706.4	708.4
25°	663.2	667.2	675.1	692.0	695.0
27.5°	643.4	646.8	657.8	675.1	680.1
30°	620.0	625.5	638.4	657.3	662.7
32.5°	597.6	603.6	618.5	640.4	645.3
35°	570.8	579.8	598.6	620.5	626.5
37.5°	546.5	554.9	576.3	600.1	607.1
40°	519.7	530.1	554.4	579.8	586.7
42.5°	494.8	504.7	531.1	556.9	566.3
45°	465.0	478.9	506.2	534.6	544.5
47.5°	437.7	451.6	482.9	513.2	522.1
50°	410.4	425.3	458.0	489.3	498.3
52.5°	382.0	397.9	433.2	464.5	474.9
55°	352.2	370.6	407.4	439.2	448.6
57.5°	323.9	342.8	382.0	414.3	423.8
60°	296.1	315.5	355.7	386.5	396.4
62.5°	265.3	288.1	329.9	360.2	367.6
65°	237.5	260.8	301.6	331.9	340.3
67.5°	208.2	233.5	274.2	302.1	310.0
70°	180.3	206.7	245.9	271.7	275.2
72.5°	150.5	177.4	217.1	233.5	233.5
75°	123.7	151.0	187.8	190.8	188.3
77.5°	94.4	124.7	148.5	142.6	136.6
80°	68.1	97.9	108.8	97.9	89.9
82.5°	45.7	71.0	65.6	52.2	46.2
85°	25.3	37.8	25.8	14.4	10.4
87.5°	9.4	8.4	2.5	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)