

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: P311915

Luminaire Tested: **14FCZ2-35-UNV-L83050-HRP-CA08-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: P311915  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 14FCZ2-35-UNV-L83050-HRP-CA08-W2A-U-3000K  
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC 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**

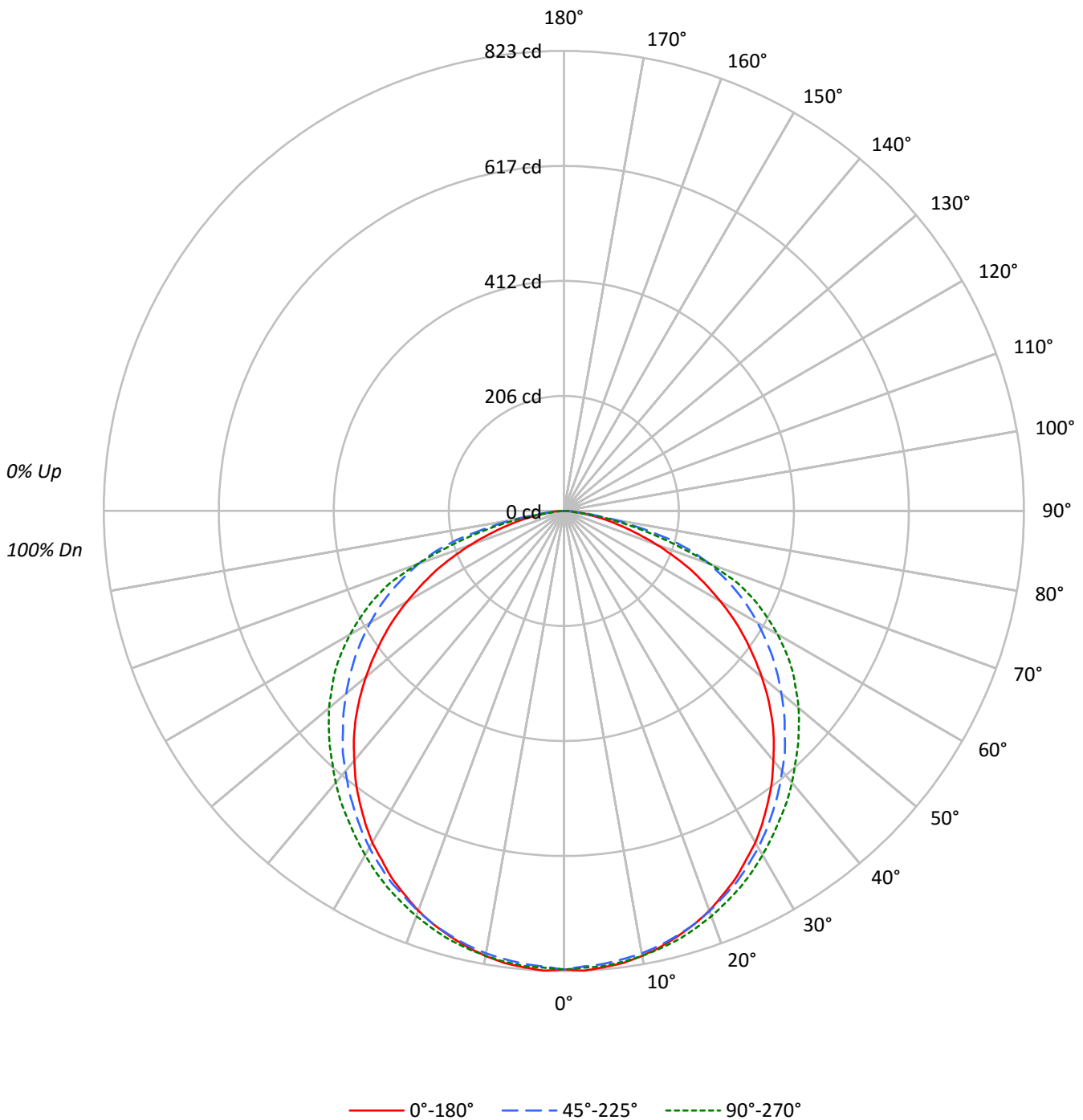
Lumens per Lamp: N/A  
Luminaire Lumens: 2415.0 lumens  
Efficiency: N/A  
Efficacy: 82.1 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 29.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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



TEST NUMBER: P311915

CATALOG NUMBER: 14FCZ2-35-UNV-L83050-HRP-CA08-W2A-U-3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P311915

CATALOG NUMBER: 14FCZ2-35-UNV-L83050-HRP-CA08-W2A-U-3000K

**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	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	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	38	31	26	37	30	26	37	30	25	36	30	25	24

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

	0°	45°	90°
0°	2207	2207	2207
5°	2213	2197	2207
10°	2208	2195	2208
15°	2194	2190	2211
20°	2179	2181	2209
25°	2156	2174	2210
30°	2128	2161	2209
35°	2091	2145	2213
40°	2049	2134	2230
45°	2006	2127	2254
50°	1936	2127	2295
55°	1853	2137	2344
60°	1741	2154	2375
65°	1605	2176	2388
70°	1398	2181	2199
75°	1153	2030	1777
80°	907	1460	1189
85°	704	562	281



TEST NUMBER: P311915

CATALOG NUMBER: 14FCZ2-35-UNV-L83050-HRP-CA08-W2A-U-3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.6	3.2
10°-20°	222.8	9.2
20°-30°	338.3	14.0
30°-40°	410.0	17.0
40°-50°	432.0	17.9
50°-60°	403.3	16.7
60°-70°	322.3	13.3
70°-80°	177.3	7.3
80°-90°	31.3	1.3
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°	638.8	26.5
0°-40°	1048.7	43.4
0°-60°	1884.0	78.0
0°-90°	2415.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2415.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	820	820	820	820	820	
5°	819	817	813	819	817	78
15°	788	788	786	794	794	222
25°	726	728	732	743	744	334
35°	636	642	653	670	674	398
45°	527	537	559	584	592	405
55°	395	415	456	488	500	353
65°	252	284	342	370	375	248
75°	111	159	195	175	171	119
85°	23	29	18	11	9	28
90°	0	0	0	0	0	



TEST NUMBER: P311915

CATALOG NUMBER: 14FCZ2-35-UNV-L83050-HRP-CA08-W2A-U-3000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	820.1	820.1	820.1	820.1	820.1
2.5°	823.2	820.9	815.6	820.1	817.9
5°	819.4	817.1	813.3	818.6	817.1
7.5°	815.6	812.6	808.8	814.8	813.3
10°	808.0	805.7	803.4	808.8	808.0
12.5°	798.9	798.1	795.8	801.9	801.2
15°	787.5	787.5	786.0	793.6	793.6
17.5°	775.3	774.6	775.3	783.7	782.9
20°	760.9	760.9	761.7	771.5	771.5
22.5°	743.4	744.2	746.5	758.6	757.9
25°	726.0	727.5	732.1	742.7	744.2
27.5°	704.7	708.5	713.8	726.7	728.3
30°	685.0	687.3	695.6	707.8	710.8
32.5°	661.4	666.0	675.1	688.8	692.6
35°	636.4	642.4	653.1	669.8	673.6
37.5°	611.3	616.6	631.1	648.5	655.4
40°	583.2	592.3	607.5	627.3	634.9
42.5°	555.9	565.0	585.5	606.0	612.8
45°	527.0	536.9	558.9	584.0	592.3
47.5°	495.1	506.5	534.6	561.2	570.3
50°	462.5	476.9	508.0	537.7	548.3
52.5°	428.3	446.5	482.2	513.4	523.2
55°	394.9	414.6	455.6	487.5	499.7
57.5°	360.7	382.0	428.3	464.7	471.6
60°	323.5	349.3	400.2	432.1	441.2
62.5°	287.1	316.7	371.3	401.7	409.3
65°	252.1	284.0	341.7	369.8	375.1
67.5°	214.1	252.1	309.1	334.9	336.4
70°	177.7	221.7	277.2	289.3	279.5
72.5°	142.0	189.1	240.0	230.1	221.7
75°	110.9	158.7	195.2	175.4	170.9
77.5°	82.0	129.9	139.7	129.1	120.7
80°	58.5	102.5	94.2	80.5	76.7
82.5°	40.2	64.5	51.6	40.2	34.9
85°	22.8	28.9	18.2	11.4	9.1
87.5°	9.9	6.8	3.8	3.0	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)