

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: P312712

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-RDP-CP250-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: P312712  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-39HE-UNV-L83050-RDP-CP250-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" 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**

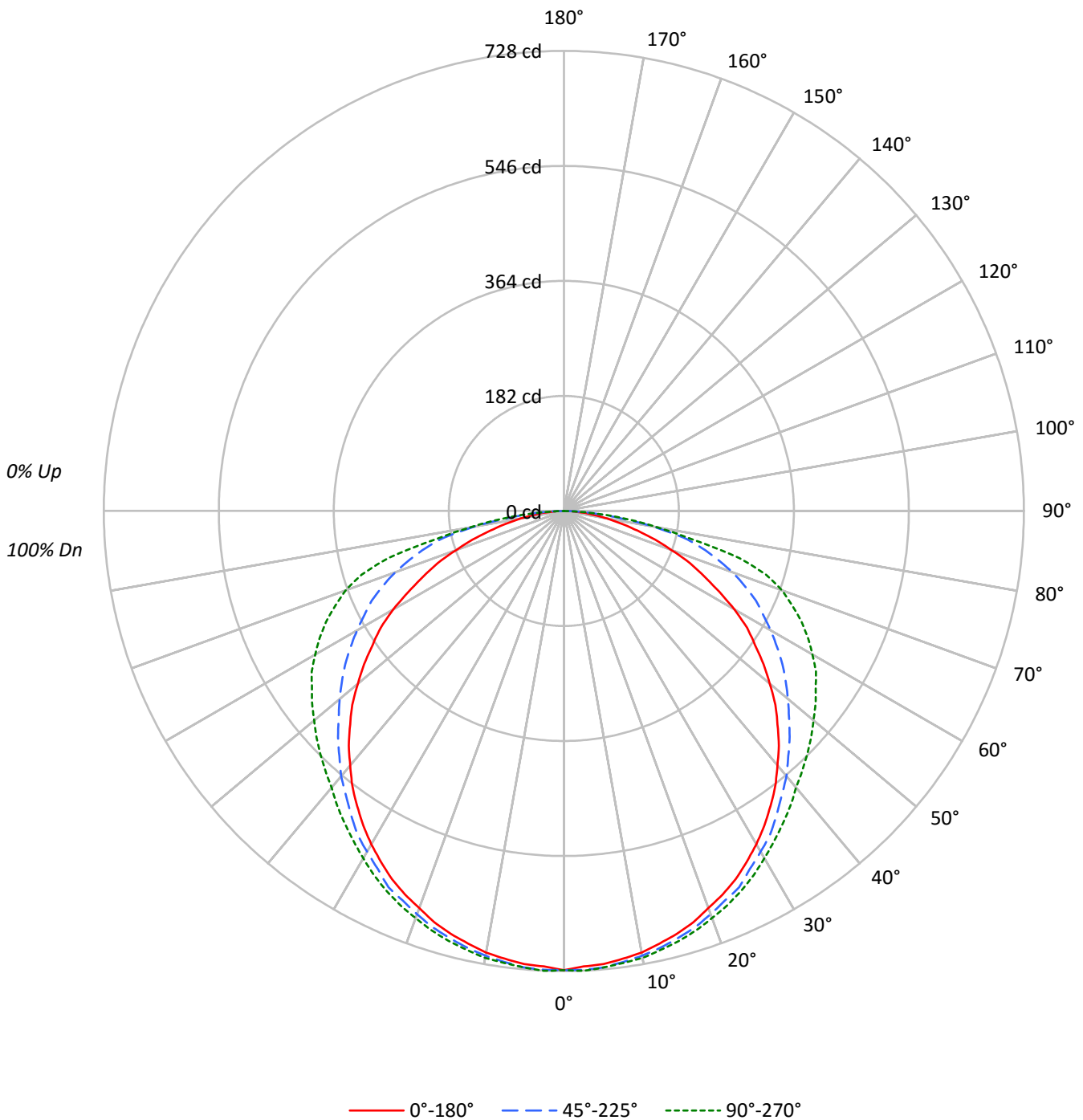
Lumens per Lamp: N/A  
Luminaire Lumens: 2313.0 lumens  
Efficiency: N/A  
Efficacy: 69.9 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	1955	1955	1955
5°	1944	1958	1958
10°	1939	1953	1962
15°	1929	1948	1962
20°	1915	1944	1964
25°	1910	1950	1970
30°	1893	1935	1972
35°	1872	1928	1984
40°	1847	1925	2008
45°	1819	1923	2072
50°	1781	1937	2159
55°	1732	1980	2283
60°	1676	2033	2445
65°	1560	2134	2644
70°	1433	2236	2891
75°	1256	2353	2990
80°	1082	2241	2346
85°	945	1627	1788



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.7	3.0
10°-20°	197.3	8.5
20°-30°	301.1	13.0
30°-40°	367.6	15.9
40°-50°	393.1	17.0
50°-60°	379.4	16.4
60°-70°	326.6	14.1
70°-80°	221.0	9.6
80°-90°	58.3	2.5
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°	567.1	24.5
0°-40°	934.7	40.4
0°-60°	1707.1	73.8
0°-90°	2313.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2313.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	727	727	727	727	727	
5°	720	721	725	725	725	68
15°	692	694	699	703	704	195
25°	643	647	657	660	664	296
35°	570	575	587	599	604	357
45°	478	487	505	531	544	369
55°	369	381	422	464	487	331
65°	245	269	335	388	415	244
75°	121	160	226	272	288	130
85°	31	42	53	54	58	34
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	726.6	726.6	726.6	726.6	726.6
2.5°	721.4	723.2	726.6	726.6	728.3
5°	719.7	721.4	724.9	724.9	724.9
7.5°	714.6	716.3	719.7	721.4	721.4
10°	709.5	711.2	714.6	716.3	718.0
12.5°	701.0	702.7	707.8	711.2	711.2
15°	692.5	694.2	699.3	702.7	704.4
17.5°	682.3	685.7	690.8	694.2	695.9
20°	668.7	672.1	678.9	684.0	685.7
22.5°	656.8	660.2	667.0	672.1	675.5
25°	643.2	646.6	656.8	660.2	663.6
27.5°	626.2	629.6	638.1	644.9	650.0
30°	609.1	612.6	622.8	631.3	634.7
32.5°	590.4	595.5	607.4	614.3	619.4
35°	570.0	575.1	587.0	598.9	604.0
37.5°	549.6	554.7	566.6	581.9	588.7
40°	525.8	532.6	547.9	568.3	571.7
42.5°	503.7	512.2	525.8	549.6	558.1
45°	478.1	486.6	505.4	530.9	544.5
47.5°	454.3	462.8	483.2	513.9	530.9
50°	425.4	437.3	462.8	498.5	515.6
52.5°	398.2	408.4	442.4	481.5	502.0
55°	369.2	381.1	422.0	464.5	486.6
57.5°	343.7	353.9	399.9	447.5	473.0
60°	311.4	325.0	377.7	428.8	454.3
62.5°	277.3	297.8	355.6	408.4	435.6
65°	245.0	268.8	335.2	387.9	415.2
67.5°	216.1	241.6	309.7	365.8	391.4
70°	182.1	214.4	284.2	338.6	367.5
72.5°	151.4	187.2	255.2	309.7	335.2
75°	120.8	159.9	226.3	272.2	287.6
77.5°	93.6	131.0	194.0	207.6	209.3
80°	69.8	103.8	144.6	146.3	151.4
82.5°	47.6	73.2	93.6	102.1	103.8
85°	30.6	42.5	52.7	54.4	57.9
87.5°	13.6	15.3	18.7	17.0	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)