

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: P308540

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-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: P308540  
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-L82765-RDP-CP187-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB 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: 2218.0 lumens  
Efficiency: N/A  
Efficacy: 67.6 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

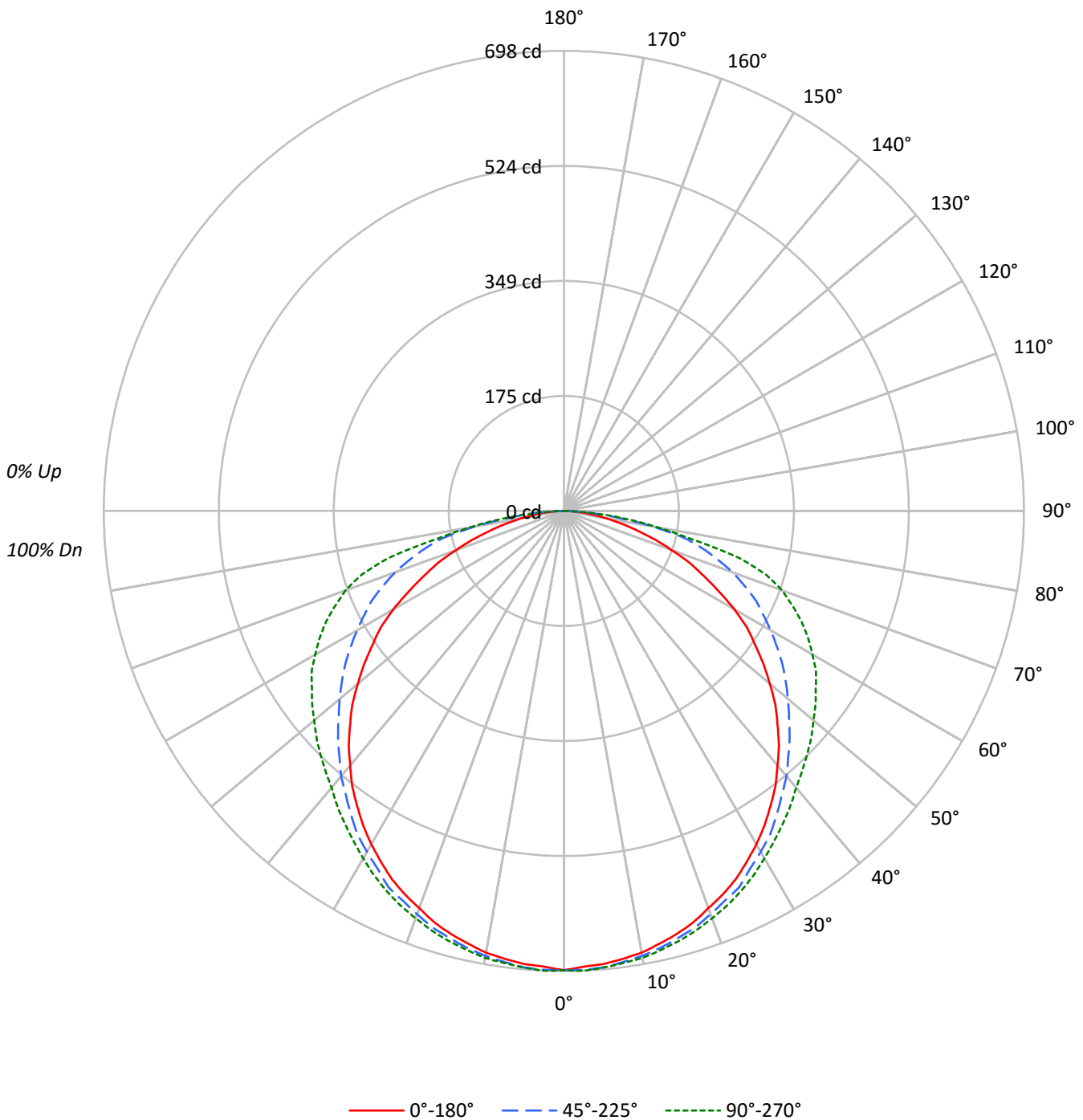
Input Watts (W): 32.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1875	1875	1875
5°	1864	1878	1878
10°	1859	1873	1882
15°	1850	1868	1882
20°	1836	1864	1883
25°	1831	1870	1889
30°	1815	1856	1891
35°	1796	1849	1903
40°	1771	1846	1926
45°	1745	1844	1987
50°	1708	1858	2070
55°	1661	1898	2190
60°	1607	1949	2344
65°	1496	2046	2535
70°	1374	2144	2773
75°	1204	2256	2866
80°	1037	2149	2250
85°	908	1562	1714



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.9	3.0
10°-20°	189.2	8.5
20°-30°	288.7	13.0
30°-40°	352.5	15.9
40°-50°	376.9	17.0
50°-60°	363.8	16.4
60°-70°	313.2	14.1
70°-80°	211.9	9.6
80°-90°	55.9	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°	543.8	24.5
0°-40°	896.3	40.4
0°-60°	1637.0	73.8
0°-90°	2218.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2218.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	697	697	697	697	697	
5°	690	692	695	695	695	66
15°	664	666	671	674	676	187
25°	617	620	630	633	636	284
35°	547	552	563	574	579	342
45°	458	467	485	509	522	354
55°	354	366	405	445	467	317
65°	235	258	321	372	398	234
75°	116	153	217	261	276	124
85°	29	41	51	52	56	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	696.7	696.7	696.7	696.7	696.7
2.5°	691.8	693.4	696.7	696.7	698.3
5°	690.2	691.8	695.1	695.1	695.1
7.5°	685.3	686.9	690.2	691.8	691.8
10°	680.4	682.0	685.3	686.9	688.6
12.5°	672.2	673.9	678.8	682.0	682.0
15°	664.1	665.7	670.6	673.9	675.5
17.5°	654.3	657.6	662.4	665.7	667.3
20°	641.2	644.5	651.0	655.9	657.6
22.5°	629.8	633.1	639.6	644.5	647.8
25°	616.8	620.0	629.8	633.1	636.3
27.5°	600.4	603.7	611.9	618.4	623.3
30°	584.1	587.4	597.2	605.3	608.6
32.5°	566.2	571.1	582.5	589.0	593.9
35°	546.6	551.5	562.9	574.3	579.2
37.5°	527.0	531.9	543.3	558.0	564.5
40°	504.2	510.7	525.4	545.0	548.2
42.5°	483.0	491.1	504.2	527.0	535.2
45°	458.5	466.7	484.6	509.1	522.1
47.5°	435.6	443.8	463.4	492.8	509.1
50°	407.9	419.3	443.8	478.1	494.4
52.5°	381.8	391.6	424.2	461.8	481.3
55°	354.1	365.5	404.6	445.4	466.7
57.5°	329.6	339.4	383.4	429.1	453.6
60°	298.6	311.6	362.2	411.2	435.6
62.5°	266.0	285.5	341.0	391.6	417.7
65°	235.0	257.8	321.4	372.0	398.1
67.5°	207.2	231.7	297.0	350.8	375.3
70°	174.6	205.6	272.5	324.7	352.4
72.5°	145.2	179.5	244.7	297.0	321.4
75°	115.8	153.4	217.0	261.1	275.7
77.5°	89.7	125.6	186.0	199.1	200.7
80°	66.9	99.5	138.7	140.3	145.2
82.5°	45.7	70.2	89.7	97.9	99.5
85°	29.4	40.8	50.6	52.2	55.5
87.5°	13.1	14.7	17.9	16.3	16.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)