

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: P308538

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-CP187-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: P308538  
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-3000K  
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: 2097.0 lumens  
Efficiency: N/A  
Efficacy: 65.1 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

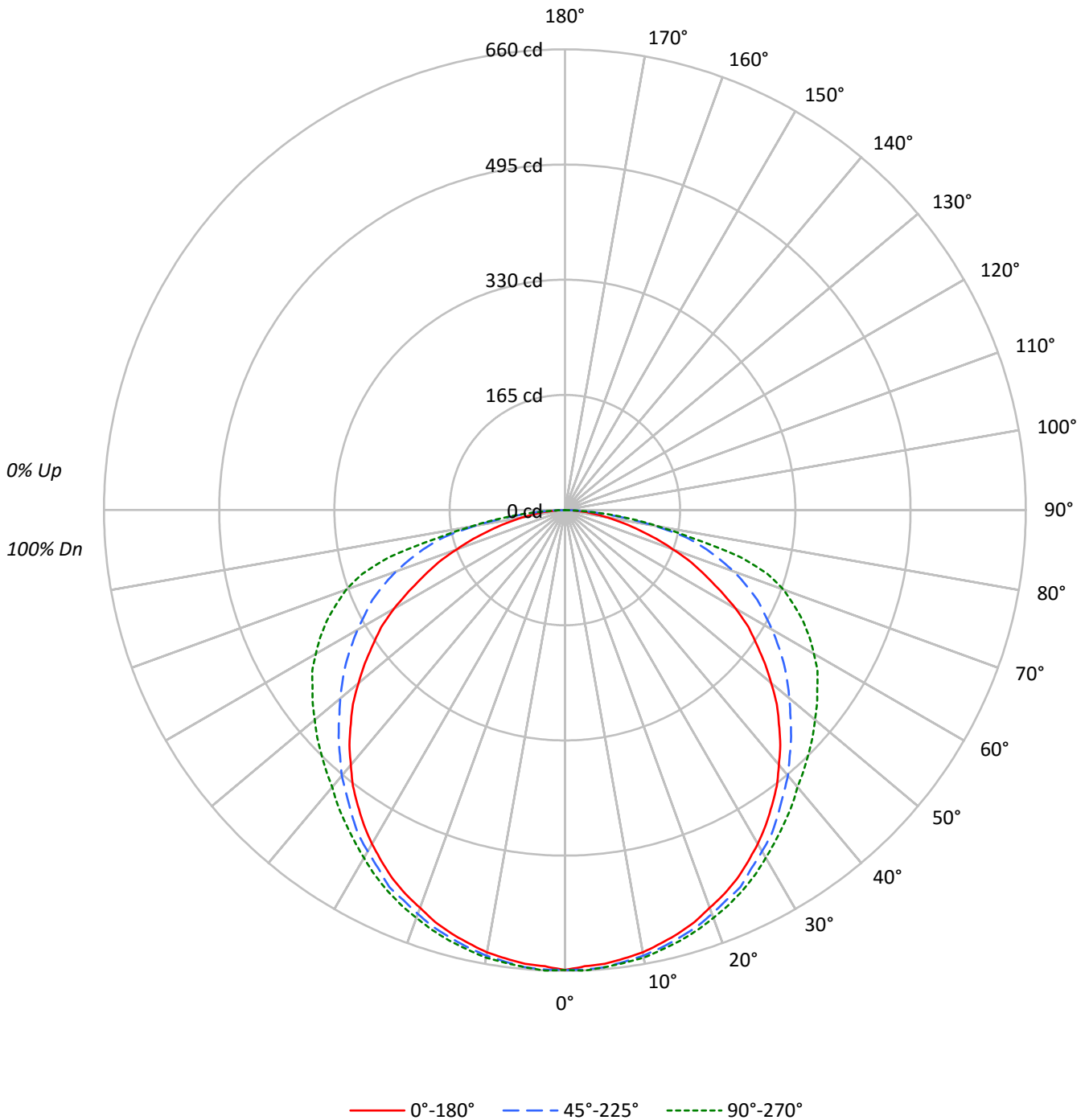
Input Watts (W): 32.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	1773	1773	1773
5°	1763	1775	1775
10°	1758	1770	1779
15°	1749	1766	1779
20°	1736	1763	1780
25°	1731	1768	1786
30°	1716	1754	1788
35°	1698	1748	1799
40°	1675	1745	1821
45°	1650	1744	1878
50°	1615	1757	1957
55°	1571	1795	2070
60°	1519	1843	2217
65°	1414	1935	2397
70°	1299	2027	2622
75°	1138	2133	2711
80°	979	2032	2128
85°	858	1476	1618



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.3	3.0
10°-20°	178.9	8.5
20°-30°	272.9	13.0
30°-40°	333.3	15.9
40°-50°	356.3	17.0
50°-60°	344.0	16.4
60°-70°	296.1	14.1
70°-80°	200.3	9.6
80°-90°	52.9	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°	514.2	24.5
0°-40°	847.4	40.4
0°-60°	1547.7	73.8
0°-90°	2097.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2097.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	659	659	659	659	659	
5°	652	654	657	657	657	62
15°	628	629	634	637	639	177
25°	583	586	596	598	602	268
35°	517	521	532	543	548	323
45°	434	441	458	481	494	335
55°	335	346	383	421	441	300
65°	222	244	304	352	376	221
75°	110	145	205	247	261	117
85°	28	39	48	49	52	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	658.7	658.7	658.7	658.7	658.7
2.5°	654.1	655.6	658.7	658.7	660.2
5°	652.5	654.1	657.2	657.2	657.2
7.5°	647.9	649.4	652.5	654.1	654.1
10°	643.3	644.8	647.9	649.4	651.0
12.5°	635.6	637.1	641.7	644.8	644.8
15°	627.9	629.4	634.0	637.1	638.6
17.5°	618.6	621.7	626.3	629.4	630.9
20°	606.3	609.3	615.5	620.1	621.7
22.5°	595.5	598.5	604.7	609.3	612.4
25°	583.1	586.2	595.5	598.5	601.6
27.5°	567.7	570.8	578.5	584.7	589.3
30°	552.3	555.3	564.6	572.3	575.4
32.5°	535.3	539.9	550.7	556.9	561.5
35°	516.8	521.4	532.2	543.0	547.6
37.5°	498.3	502.9	513.7	527.6	533.8
40°	476.7	482.8	496.7	515.2	518.3
42.5°	456.6	464.3	476.7	498.3	506.0
45°	433.5	441.2	458.2	481.3	493.6
47.5°	411.9	419.6	438.1	465.9	481.3
50°	385.7	396.5	419.6	452.0	467.4
52.5°	361.0	370.2	401.1	436.6	455.1
55°	334.8	345.5	382.6	421.1	441.2
57.5°	311.6	320.9	362.5	405.7	428.9
60°	282.3	294.6	342.5	388.7	411.9
62.5°	251.4	270.0	322.4	370.2	394.9
65°	222.1	243.7	303.9	351.7	376.4
67.5°	195.9	219.1	280.8	331.7	354.8
70°	165.1	194.4	257.6	307.0	333.2
72.5°	137.3	169.7	231.4	280.8	303.9
75°	109.5	145.0	205.2	246.8	260.7
77.5°	84.8	118.8	175.9	188.2	189.7
80°	63.2	94.1	131.1	132.7	137.3
82.5°	43.2	66.3	84.8	92.6	94.1
85°	27.8	38.6	47.8	49.4	52.4
87.5°	12.3	13.9	17.0	15.4	15.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)