

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: P308552

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-CP250-W2A-U-5500K**

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: P308552
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-CP250-W2A-U-5500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" 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: 2291.0 lumens
Efficiency: N/A
Efficacy: 68.8 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

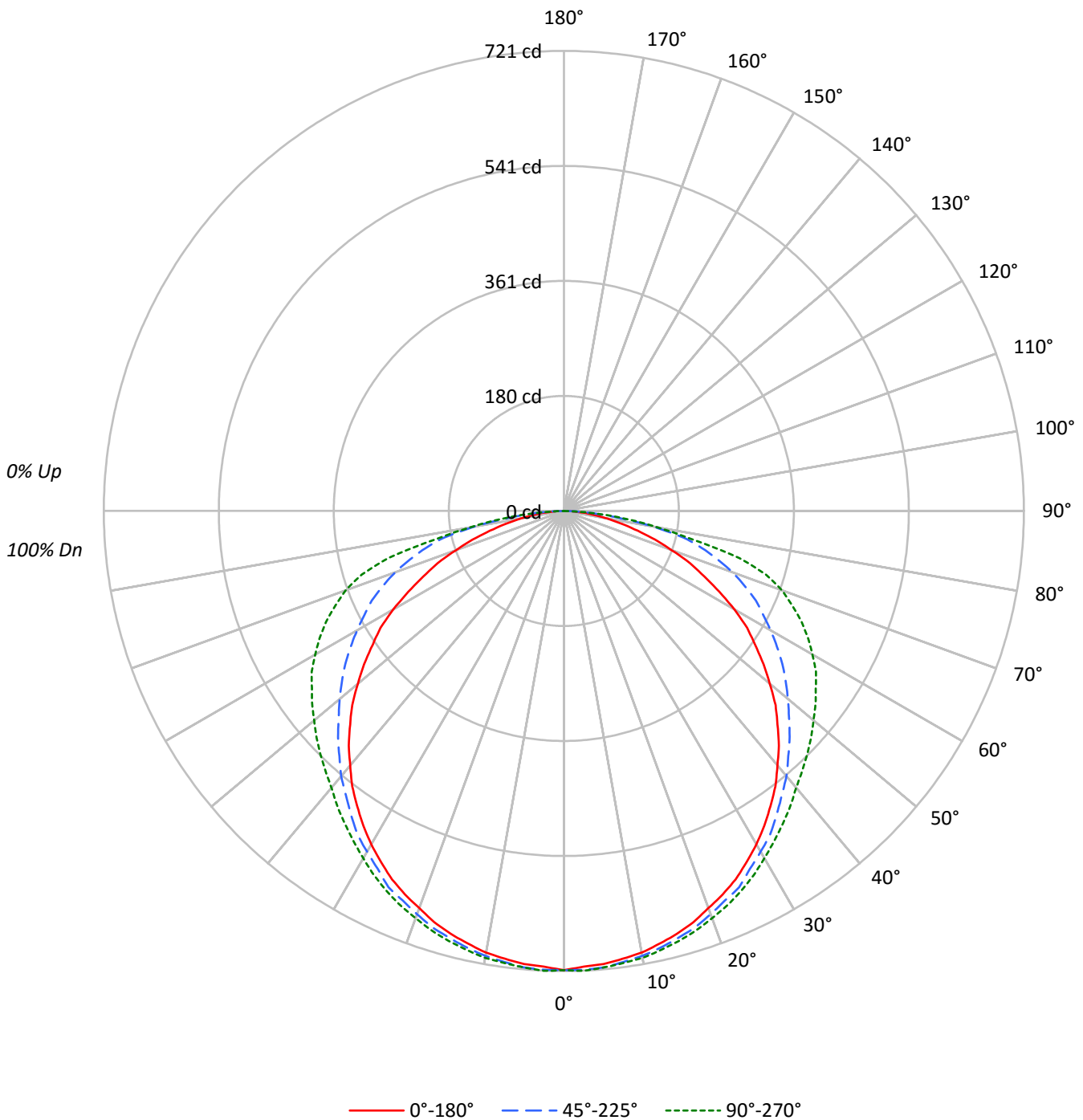
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1936	1936	1936
5°	1926	1940	1940
10°	1920	1934	1943
15°	1911	1930	1944
20°	1897	1926	1945
25°	1892	1931	1952
30°	1875	1917	1953
35°	1855	1910	1965
40°	1829	1906	1989
45°	1802	1905	2052
50°	1764	1919	2138
55°	1716	1961	2261
60°	1660	2013	2422
65°	1545	2114	2618
70°	1419	2215	2864
75°	1245	2331	2961
80°	1071	2221	2325
85°	936	1612	1769



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.1	3.0
10°-20°	195.5	8.5
20°-30°	298.2	13.0
30°-40°	364.1	15.9
40°-50°	389.3	17.0
50°-60°	375.8	16.4
60°-70°	323.5	14.1
70°-80°	218.9	9.6
80°-90°	57.7	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°	561.7	24.5
0°-40°	925.8	40.4
0°-60°	1690.9	73.8
0°-90°	2291.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2291.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	720	720	720	720	720	
5°	713	715	718	718	718	68
15°	686	688	693	696	698	194
25°	637	640	650	654	657	293
35°	565	570	581	593	598	353
45°	474	482	500	526	539	366
55°	366	378	418	460	482	328
65°	243	266	332	384	411	241
75°	120	158	224	270	285	128
85°	30	42	52	54	57	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	719.6	719.6	719.6	719.6	719.6
2.5°	714.6	716.3	719.6	719.6	721.3
5°	712.9	714.6	718.0	718.0	718.0
7.5°	707.8	709.5	712.9	714.6	714.6
10°	702.8	704.5	707.8	709.5	711.2
12.5°	694.4	696.0	701.1	704.5	704.5
15°	685.9	687.6	692.7	696.0	697.7
17.5°	675.8	679.2	684.3	687.6	689.3
20°	662.3	665.7	672.5	677.5	679.2
22.5°	650.5	653.9	660.7	665.7	669.1
25°	637.1	640.4	650.5	653.9	657.3
27.5°	620.2	623.6	632.0	638.7	643.8
30°	603.4	606.7	616.8	625.3	628.6
32.5°	584.8	589.9	601.7	608.4	613.5
35°	564.6	569.6	581.4	593.2	598.3
37.5°	544.4	549.4	561.2	576.4	583.1
40°	520.8	527.5	542.7	562.9	566.3
42.5°	498.9	507.3	520.8	544.4	552.8
45°	473.6	482.0	500.5	525.8	539.3
47.5°	450.0	458.4	478.6	509.0	525.8
50°	421.3	433.1	458.4	493.8	510.7
52.5°	394.4	404.5	438.2	477.0	497.2
55°	365.7	377.5	418.0	460.1	482.0
57.5°	340.4	350.6	396.1	443.2	468.5
60°	308.4	321.9	374.1	424.7	450.0
62.5°	274.7	294.9	352.2	404.5	431.4
65°	242.7	266.3	332.0	384.3	411.2
67.5°	214.0	239.3	306.7	362.3	387.6
70°	180.3	212.4	281.5	335.4	364.0
72.5°	150.0	185.4	252.8	306.7	332.0
75°	119.7	158.4	224.2	269.7	284.8
77.5°	92.7	129.8	192.1	205.6	207.3
80°	69.1	102.8	143.3	144.9	150.0
82.5°	47.2	72.5	92.7	101.1	102.8
85°	30.3	42.1	52.2	53.9	57.3
87.5°	13.5	15.2	18.5	16.9	16.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)