

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: P308551

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-CP250-W2A-U-5000K**

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: P308551
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-5000K
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: 2269.0 lumens
Efficiency: N/A
Efficacy: 68.3 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

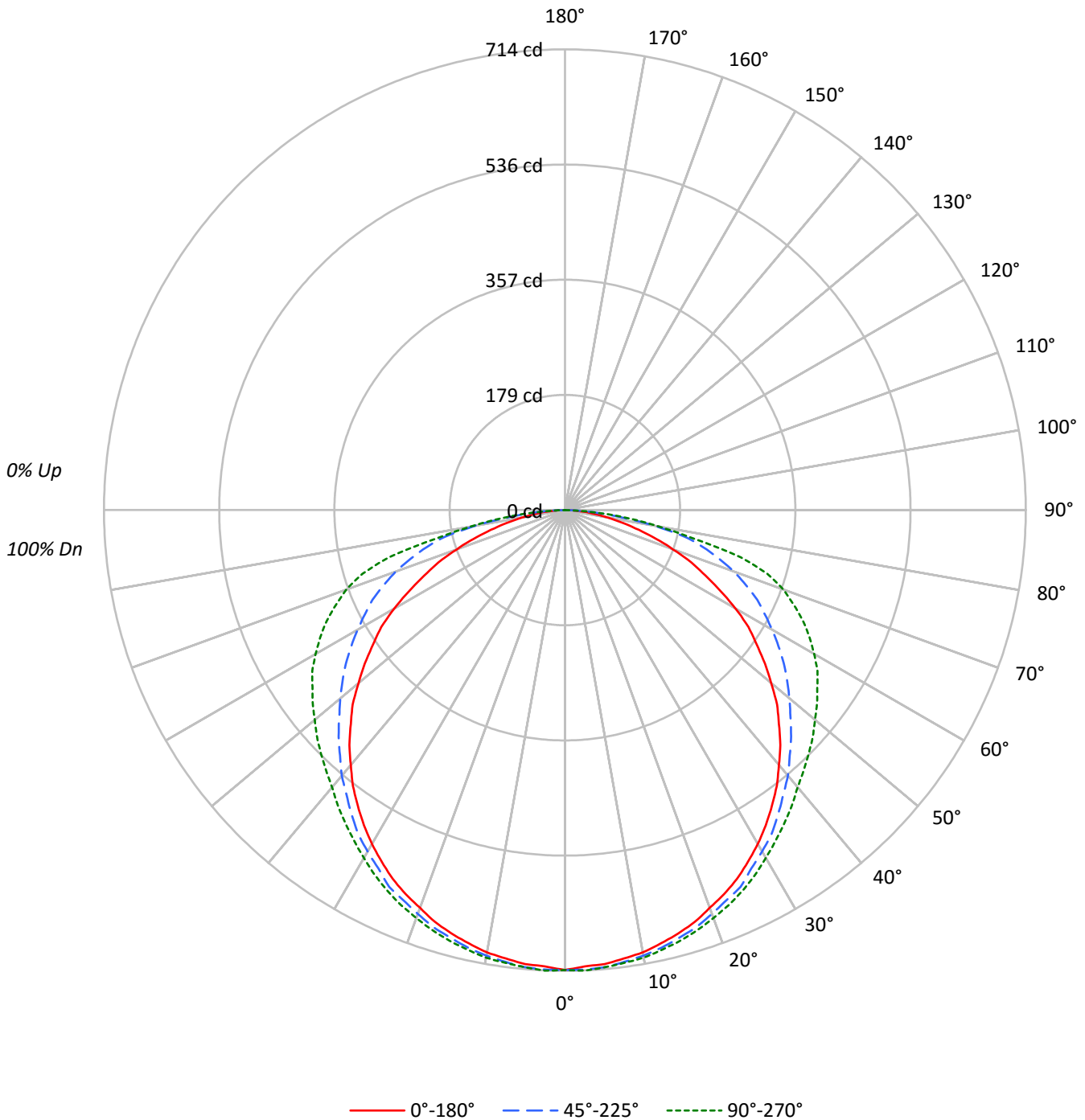
Input Watts (W): 33.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1918	1918	1918
5°	1907	1921	1921
10°	1902	1915	1925
15°	1892	1911	1925
20°	1879	1907	1926
25°	1873	1913	1933
30°	1857	1898	1935
35°	1837	1892	1947
40°	1812	1888	1970
45°	1785	1886	2033
50°	1747	1901	2117
55°	1699	1942	2240
60°	1644	1995	2399
65°	1531	2094	2593
70°	1405	2194	2836
75°	1232	2308	2933
80°	1060	2199	2303
85°	926	1596	1754



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.4	3.0
10°-20°	193.6	8.5
20°-30°	295.3	13.0
30°-40°	360.6	15.9
40°-50°	385.6	17.0
50°-60°	372.2	16.4
60°-70°	320.4	14.1
70°-80°	216.8	9.6
80°-90°	57.2	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°	556.3	24.5
0°-40°	916.9	40.4
0°-60°	1674.7	73.8
0°-90°	2269.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2269.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	713	713	713	713	713	
5°	706	708	711	711	711	67
15°	679	681	686	689	691	192
25°	631	634	644	648	651	290
35°	559	564	576	588	593	350
45°	469	477	496	521	534	362
55°	362	374	414	456	477	325
65°	240	264	329	381	407	239
75°	118	157	222	267	282	127
85°	30	42	52	53	57	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	712.7	712.7	712.7	712.7	712.7
2.5°	707.7	709.4	712.7	712.7	714.4
5°	706.1	707.7	711.1	711.1	711.1
7.5°	701.0	702.7	706.1	707.7	707.7
10°	696.0	697.7	701.0	702.7	704.4
12.5°	687.7	689.4	694.4	697.7	697.7
15°	679.3	681.0	686.0	689.4	691.0
17.5°	669.3	672.7	677.7	681.0	682.7
20°	656.0	659.3	666.0	671.0	672.7
22.5°	644.3	647.6	654.3	659.3	662.7
25°	630.9	634.3	644.3	647.6	651.0
27.5°	614.3	617.6	625.9	632.6	637.6
30°	597.6	600.9	610.9	619.3	622.6
32.5°	579.2	584.2	595.9	602.6	607.6
35°	559.2	564.2	575.9	587.5	592.6
37.5°	539.1	544.1	555.8	570.9	577.5
40°	515.8	522.4	537.5	557.5	560.8
42.5°	494.1	502.4	515.8	539.1	547.5
45°	469.0	477.4	495.7	520.8	534.1
47.5°	445.7	454.0	474.0	504.1	520.8
50°	417.3	429.0	454.0	489.1	505.8
52.5°	390.6	400.6	434.0	472.4	492.4
55°	362.2	373.9	414.0	455.7	477.4
57.5°	337.2	347.2	392.3	439.0	464.0
60°	305.5	318.8	370.6	420.6	445.7
62.5°	272.1	292.1	348.9	400.6	427.3
65°	240.4	263.7	328.8	380.6	407.3
67.5°	212.0	237.0	303.8	358.9	383.9
70°	178.6	210.3	278.8	332.2	360.5
72.5°	148.6	183.6	250.4	303.8	328.8
75°	118.5	156.9	222.0	267.1	282.1
77.5°	91.8	128.5	190.3	203.6	205.3
80°	68.4	101.8	141.9	143.5	148.6
82.5°	46.7	71.8	91.8	100.1	101.8
85°	30.0	41.7	51.7	53.4	56.8
87.5°	13.4	15.0	18.4	16.7	16.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)