

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: P308529

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-CP125-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: P308529
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-CP125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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: 2190.0 lumens
Efficiency: N/A
Efficacy: 68.0 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

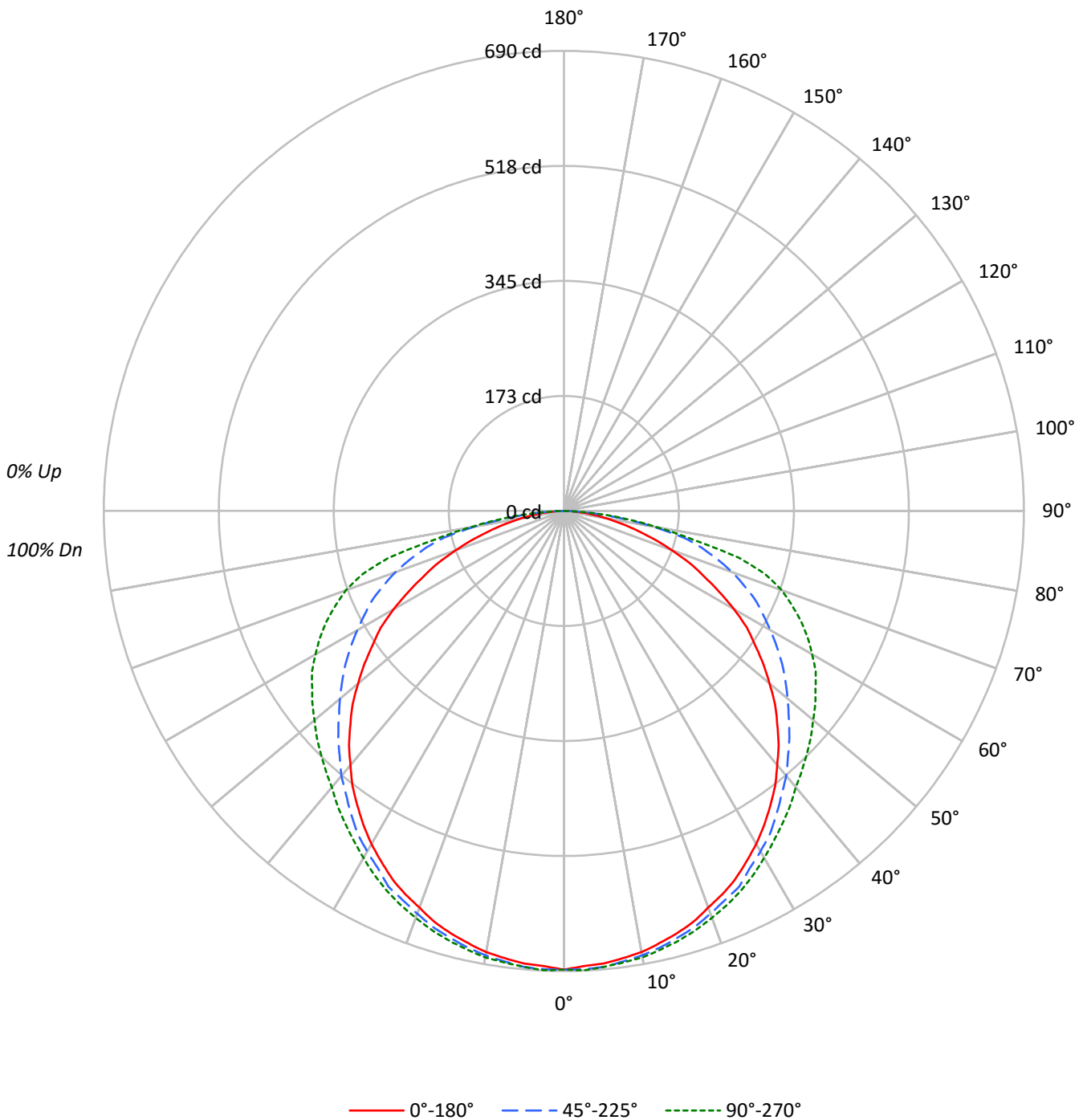
Input Watts (W): 32.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1851	1851	1851
5°	1841	1854	1854
10°	1836	1849	1858
15°	1827	1845	1858
20°	1813	1841	1859
25°	1808	1847	1866
30°	1792	1832	1867
35°	1773	1826	1879
40°	1749	1822	1901
45°	1723	1821	1962
50°	1686	1834	2043
55°	1640	1874	2162
60°	1587	1925	2315
65°	1477	2021	2503
70°	1356	2116	2738
75°	1189	2228	2831
80°	1024	2122	2222
85°	895	1541	1692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	3.0
10°-20°	186.8	8.5
20°-30°	285.1	13.0
30°-40°	348.1	15.9
40°-50°	372.1	17.0
50°-60°	359.2	16.4
60°-70°	309.2	14.1
70°-80°	209.2	9.6
80°-90°	55.2	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°	537.0	24.5
0°-40°	885.0	40.4
0°-60°	1616.4	73.8
0°-90°	2190.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2190.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	688	688	688	688	688	
5°	682	683	686	686	686	65
15°	656	657	662	665	667	185
25°	609	612	622	625	628	280
35°	540	544	556	567	572	338
45°	453	461	478	503	516	349
55°	350	361	400	440	461	313
65°	232	254	317	367	393	231
75°	114	151	214	258	272	123
85°	29	40	50	52	55	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	687.9	687.9	687.9	687.9	687.9
2.5°	683.1	684.7	687.9	687.9	689.5
5°	681.5	683.1	686.3	686.3	686.3
7.5°	676.6	678.3	681.5	683.1	683.1
10°	671.8	673.4	676.6	678.3	679.9
12.5°	663.8	665.4	670.2	673.4	673.4
15°	655.7	657.3	662.1	665.4	667.0
17.5°	646.0	649.3	654.1	657.3	658.9
20°	633.1	636.4	642.8	647.6	649.3
22.5°	621.9	625.1	631.5	636.4	639.6
25°	609.0	612.2	621.9	625.1	628.3
27.5°	592.9	596.1	604.1	610.6	615.4
30°	576.8	580.0	589.6	597.7	600.9
32.5°	559.0	563.9	575.1	581.6	586.4
35°	539.7	544.5	555.8	567.1	571.9
37.5°	520.4	525.2	536.5	551.0	557.4
40°	497.8	504.3	518.8	538.1	541.3
42.5°	476.9	484.9	497.8	520.4	528.4
45°	452.7	460.8	478.5	502.6	515.5
47.5°	430.1	438.2	457.5	486.5	502.6
50°	402.8	414.0	438.2	472.0	488.1
52.5°	377.0	386.7	418.9	455.9	475.3
55°	349.6	360.9	399.5	439.8	460.8
57.5°	325.4	335.1	378.6	423.7	447.9
60°	294.8	307.7	357.7	406.0	430.1
62.5°	262.6	281.9	336.7	386.7	412.4
65°	232.0	254.5	317.4	367.3	393.1
67.5°	204.6	228.8	293.2	346.4	370.5
70°	172.4	203.0	269.0	320.6	348.0
72.5°	143.4	177.2	241.7	293.2	317.4
75°	114.4	151.4	214.3	257.8	272.3
77.5°	88.6	124.1	183.7	196.5	198.2
80°	66.1	98.3	136.9	138.6	143.4
82.5°	45.1	69.3	88.6	96.7	98.3
85°	29.0	40.3	49.9	51.6	54.8
87.5°	12.9	14.5	17.7	16.1	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)