

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: P312700

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-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: P312700
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-L83050-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: 2192.0 lumens
Efficiency: N/A
Efficacy: 67.9 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

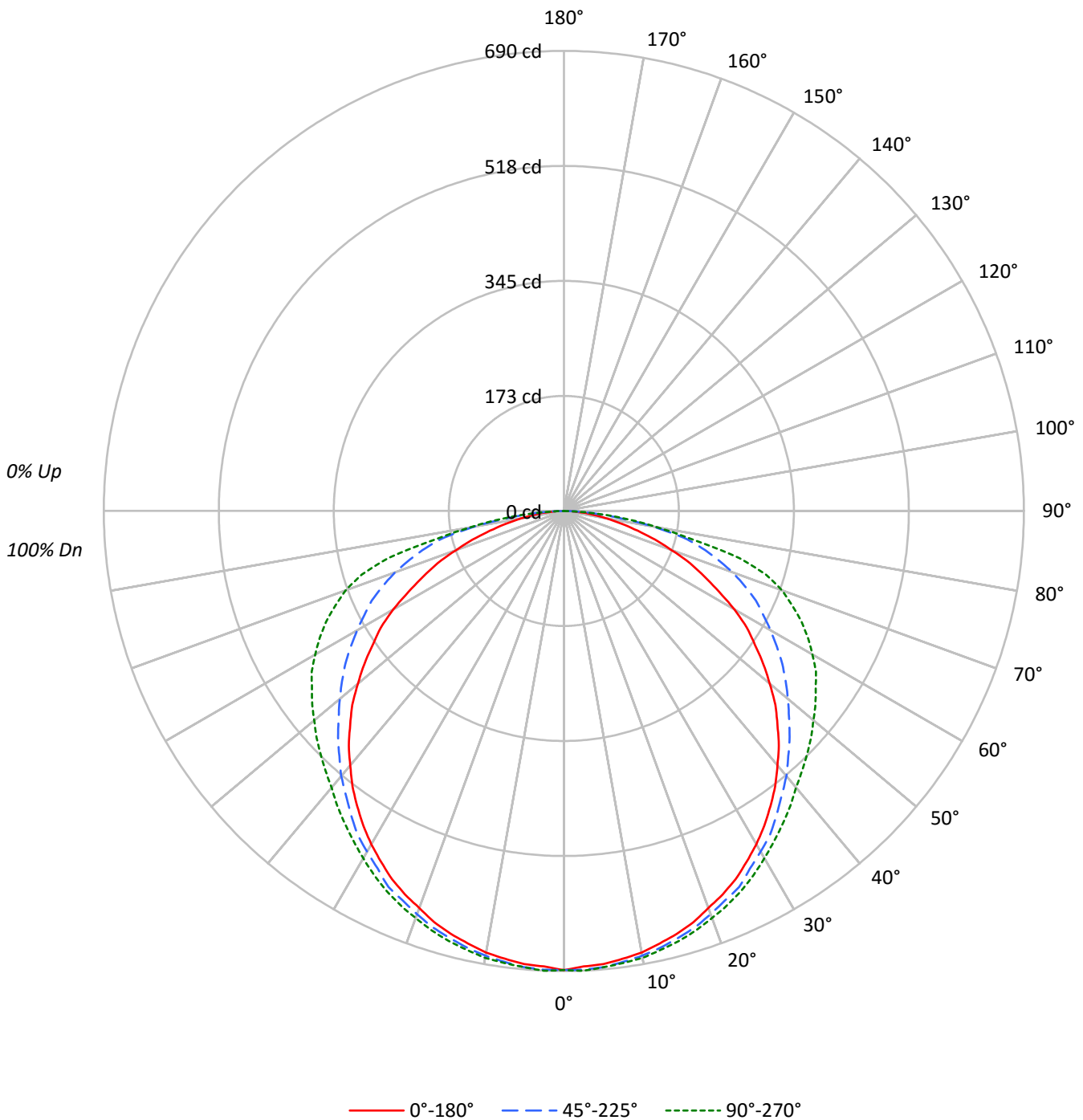
Input Watts (W): 32.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1853	1853	1853
5°	1843	1855	1855
10°	1837	1851	1859
15°	1828	1846	1860
20°	1815	1842	1861
25°	1810	1848	1867
30°	1794	1834	1869
35°	1775	1827	1880
40°	1750	1824	1903
45°	1724	1823	1964
50°	1688	1836	2045
55°	1642	1876	2164
60°	1588	1927	2317
65°	1479	2023	2506
70°	1357	2119	2740
75°	1190	2230	2833
80°	1024	2125	2224
85°	895	1544	1692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	3.0
10°-20°	187.0	8.5
20°-30°	285.3	13.0
30°-40°	348.4	15.9
40°-50°	372.5	17.0
50°-60°	359.5	16.4
60°-70°	309.5	14.1
70°-80°	209.4	9.6
80°-90°	55.3	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°	537.4	24.5
0°-40°	885.8	40.4
0°-60°	1617.8	73.8
0°-90°	2192.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2192.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	688	688	688	688	688	
5°	682	684	687	687	687	65
15°	656	658	663	666	668	185
25°	610	613	622	626	629	281
35°	540	545	556	568	572	338
45°	453	461	479	503	516	350
55°	350	361	400	440	461	314
65°	232	255	318	368	394	231
75°	114	152	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°	688.5	688.5	688.5	688.5	688.5
2.5°	683.7	685.3	688.5	688.5	690.2
5°	682.1	683.7	686.9	686.9	686.9
7.5°	677.3	678.9	682.1	683.7	683.7
10°	672.4	674.0	677.3	678.9	680.5
12.5°	664.4	666.0	670.8	674.0	674.0
15°	656.3	657.9	662.7	666.0	667.6
17.5°	646.6	649.8	654.7	657.9	659.5
20°	633.7	636.9	643.4	648.2	649.8
22.5°	622.4	625.7	632.1	636.9	640.2
25°	609.5	612.8	622.4	625.7	628.9
27.5°	593.4	596.6	604.7	611.1	616.0
30°	577.3	580.5	590.2	598.2	601.5
32.5°	559.5	564.4	575.7	582.1	587.0
35°	540.2	545.0	556.3	567.6	572.4
37.5°	520.8	525.7	537.0	551.5	557.9
40°	498.3	504.7	519.2	538.6	541.8
42.5°	477.3	485.4	498.3	520.8	528.9
45°	453.1	461.2	478.9	503.1	516.0
47.5°	430.5	438.6	458.0	487.0	503.1
50°	403.1	414.4	438.6	472.5	488.6
52.5°	377.3	387.0	419.3	456.3	475.7
55°	349.9	361.2	399.9	440.2	461.2
57.5°	325.7	335.4	378.9	424.1	448.3
60°	295.1	308.0	358.0	406.4	430.5
62.5°	262.8	282.2	337.0	387.0	412.8
65°	232.2	254.8	317.7	367.7	393.5
67.5°	204.8	229.0	293.5	346.7	370.9
70°	172.5	203.2	269.3	320.9	348.3
72.5°	143.5	177.4	241.9	293.5	317.7
75°	114.5	151.6	214.5	258.0	272.5
77.5°	88.7	124.2	183.8	196.7	198.3
80°	66.1	98.4	137.1	138.7	143.5
82.5°	45.2	69.3	88.7	96.8	98.4
85°	29.0	40.3	50.0	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)