

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: P309211

Luminaire Tested: **24FCZ2-30-UNV-L82765-HRP-CP125-W2A-U-6500K**

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: P309211
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30-UNV-L82765-HRP-CP125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET
Light Source: (168) 6500K 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: 2148.0 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

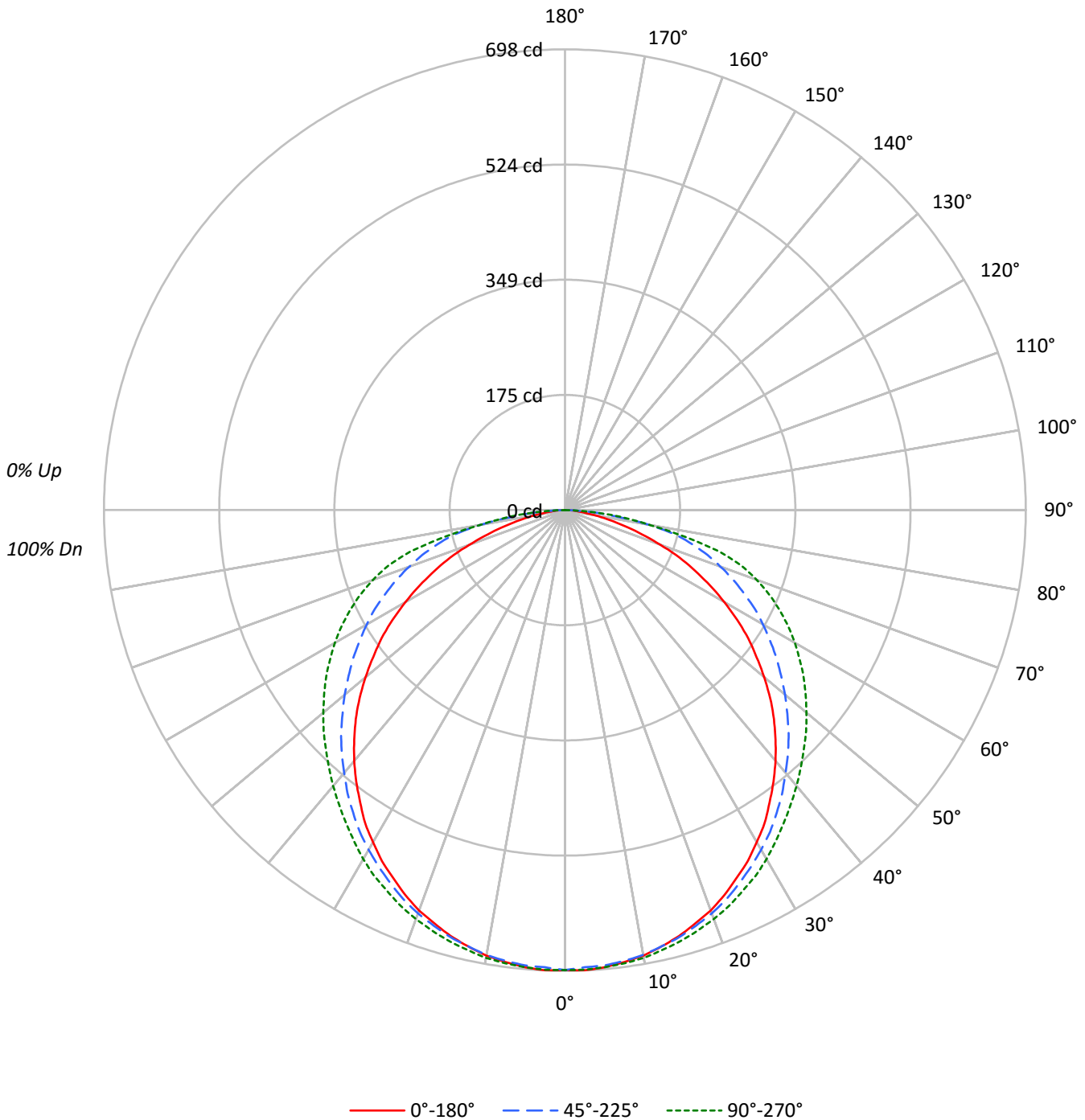
Input Watts (W): 24.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82				82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67				67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56				56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48				48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41				41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36				36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31				31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28				28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25				25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23				23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	938	938	938
5°	939	935	939
10°	936	935	941
15°	931	933	942
20°	925	931	944
25°	913	927	945
30°	903	923	949
35°	888	919	950
40°	872	913	959
45°	852	912	974
50°	825	911	1000
55°	795	918	1036
60°	750	932	1082
65°	693	954	1142
70°	605	987	1217
75°	491	1038	1258
80°	363	1017	1017
85°	278	750	848



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.0	3.1
10°-20°	189.6	8.8
20°-30°	288.6	13.4
30°-40°	350.4	16.3
40°-50°	370.3	17.2
50°-60°	349.4	16.3
60°-70°	290.5	13.5
70°-80°	191.1	8.9
80°-90°	52.1	2.4
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°	544.2	25.3
0°-40°	894.7	41.7
0°-60°	1614.3	75.2
0°-90°	2148.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2148.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	697	697	697	697	697	
5°	695	695	692	695	695	66
15°	668	669	670	676	676	188
25°	615	619	624	635	637	284
35°	540	547	559	574	578	338
45°	448	457	479	503	512	345
55°	339	353	391	428	442	302
65°	218	243	300	344	359	215
75°	94	138	200	236	242	102
85°	18	40	49	54	55	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	696.9	696.9	696.9	696.9	696.9
2.5°	697.8	696.9	693.3	696.9	696.9
5°	695.1	695.1	692.4	695.1	695.1
7.5°	690.6	690.6	688.8	692.4	692.4
10°	685.2	685.2	684.3	688.8	688.8
12.5°	677.1	678.0	677.1	682.5	682.5
15°	668.1	669.0	669.9	676.2	676.2
17.5°	656.5	658.3	660.1	667.2	668.1
20°	645.7	646.6	650.2	658.3	659.2
22.5°	631.3	634.0	638.5	646.6	649.3
25°	615.1	618.7	624.1	634.9	636.7
27.5°	599.8	602.5	609.7	621.4	625.0
30°	580.9	585.4	594.4	606.1	610.6
32.5°	562.9	567.4	578.2	590.8	594.4
35°	540.5	546.7	559.3	573.7	578.2
37.5°	518.9	525.2	540.5	556.6	562.0
40°	496.4	503.6	519.8	538.7	545.8
42.5°	472.1	482.0	500.0	520.7	528.8
45°	447.8	456.8	479.3	502.7	511.7
47.5°	421.7	432.5	456.8	484.7	495.5
50°	393.9	407.4	435.2	465.8	477.5
52.5°	366.0	381.3	412.8	446.9	459.5
55°	339.0	353.4	391.2	428.0	441.5
57.5°	309.3	327.3	368.7	408.3	421.7
60°	278.8	298.6	346.2	387.6	402.0
62.5°	248.2	270.7	324.6	366.0	381.3
65°	217.6	242.8	299.5	343.5	358.8
67.5°	187.9	215.8	276.1	320.1	335.4
70°	153.8	188.8	250.9	294.1	309.3
72.5°	122.3	162.8	226.6	267.1	280.6
75°	94.4	137.6	199.6	236.5	241.9
77.5°	69.2	112.4	171.8	184.3	185.2
80°	46.8	89.9	131.3	129.5	131.3
82.5°	30.6	67.4	82.7	92.6	93.5
85°	18.0	39.6	48.6	54.0	54.9
87.5°	9.0	13.5	17.1	18.0	19.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)