

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: P309199

Luminaire Tested: **24FCZ2-30-UNV-L82765-HRP-CA125-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: P309199
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-CA125-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 5000K 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: 2158.0 lumens
Efficiency: N/A
Efficacy: 90.3 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

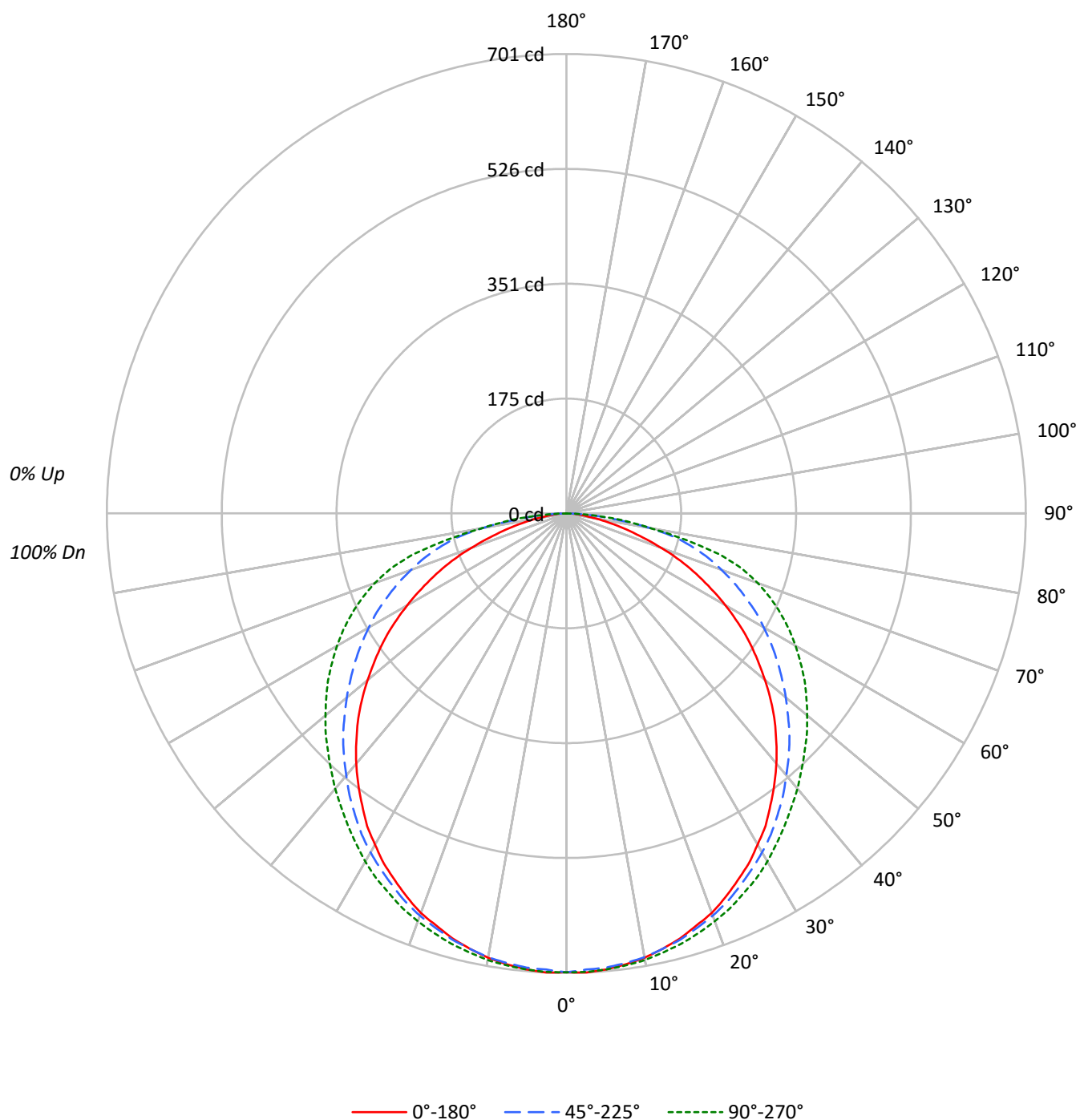
Input Watts (W): 23.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	942	942	942
5°	943	939	943
10°	941	939	945
15°	935	938	946
20°	929	935	948
25°	917	931	950
30°	907	928	953
35°	892	923	954
40°	876	917	963
45°	856	916	978
50°	828	915	1004
55°	799	922	1041
60°	754	936	1087
65°	696	958	1148
70°	608	992	1223
75°	493	1043	1263
80°	364	1022	1022
85°	279	753	851



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.3	3.1
10°-20°	190.5	8.8
20°-30°	290.0	13.4
30°-40°	352.1	16.3
40°-50°	372.0	17.2
50°-60°	351.0	16.3
60°-70°	291.8	13.5
70°-80°	192.0	8.9
80°-90°	52.4	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°	546.8	25.3
0°-40°	898.8	41.7
0°-60°	1621.8	75.2
0°-90°	2158.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2158.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	700	700	700	700	700	
5°	698	698	696	698	698	66
15°	671	672	673	679	679	189
25°	618	622	627	638	640	285
35°	543	549	562	576	581	340
45°	450	459	482	505	514	346
55°	341	355	393	430	444	303
65°	219	244	301	345	360	216
75°	95	138	201	238	243	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°	700.2	700.2	700.2	700.2	700.2
2.5°	701.1	700.2	696.6	700.2	700.2
5°	698.4	698.4	695.6	698.4	698.4
7.5°	693.8	693.8	692.0	695.6	695.6
10°	688.4	688.4	687.5	692.0	692.0
12.5°	680.3	681.2	680.3	685.7	685.7
15°	671.3	672.2	673.1	679.4	679.4
17.5°	659.5	661.3	663.1	670.4	671.3
20°	648.7	649.6	653.2	661.3	662.2
22.5°	634.2	636.9	641.4	649.6	652.3
25°	618.0	621.6	627.0	637.8	639.6
27.5°	602.6	605.3	612.5	624.3	627.9
30°	583.6	588.1	597.2	608.9	613.4
32.5°	565.6	570.1	580.9	593.6	597.2
35°	543.0	549.3	561.9	576.4	580.9
37.5°	521.3	527.6	543.0	559.2	564.6
40°	498.7	505.9	522.2	541.2	548.4
42.5°	474.3	484.2	502.3	523.1	531.2
45°	449.9	458.9	481.5	505.0	514.1
47.5°	423.7	434.6	458.9	487.0	497.8
50°	395.7	409.3	437.3	468.0	479.7
52.5°	367.7	383.1	414.7	449.0	461.7
55°	340.6	355.1	393.0	430.0	443.6
57.5°	310.8	328.9	370.4	410.2	423.7
60°	280.1	299.9	347.8	389.4	403.8
62.5°	249.3	271.9	326.1	367.7	383.1
65°	218.6	243.9	300.8	345.1	360.5
67.5°	188.8	216.8	277.4	321.6	337.0
70°	154.5	189.7	252.1	295.4	310.8
72.5°	122.9	163.5	227.7	268.3	281.9
75°	94.9	138.2	200.6	237.6	243.0
77.5°	69.6	112.9	172.6	185.2	186.1
80°	47.0	90.3	131.9	130.1	131.9
82.5°	30.7	67.8	83.1	93.1	94.0
85°	18.1	39.8	48.8	54.2	55.1
87.5°	9.0	13.6	17.2	18.1	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)