

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: P309311

Luminaire Tested: **24FCZ2-35-UNV-L82765-HRP-CP250-W2A-U-2700K**

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: P309311
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: 24FCZ2-35-UNV-L82765-HRP-CP250-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 2700K 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: 2101.0 lumens
Efficiency: N/A
Efficacy: 75.0 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

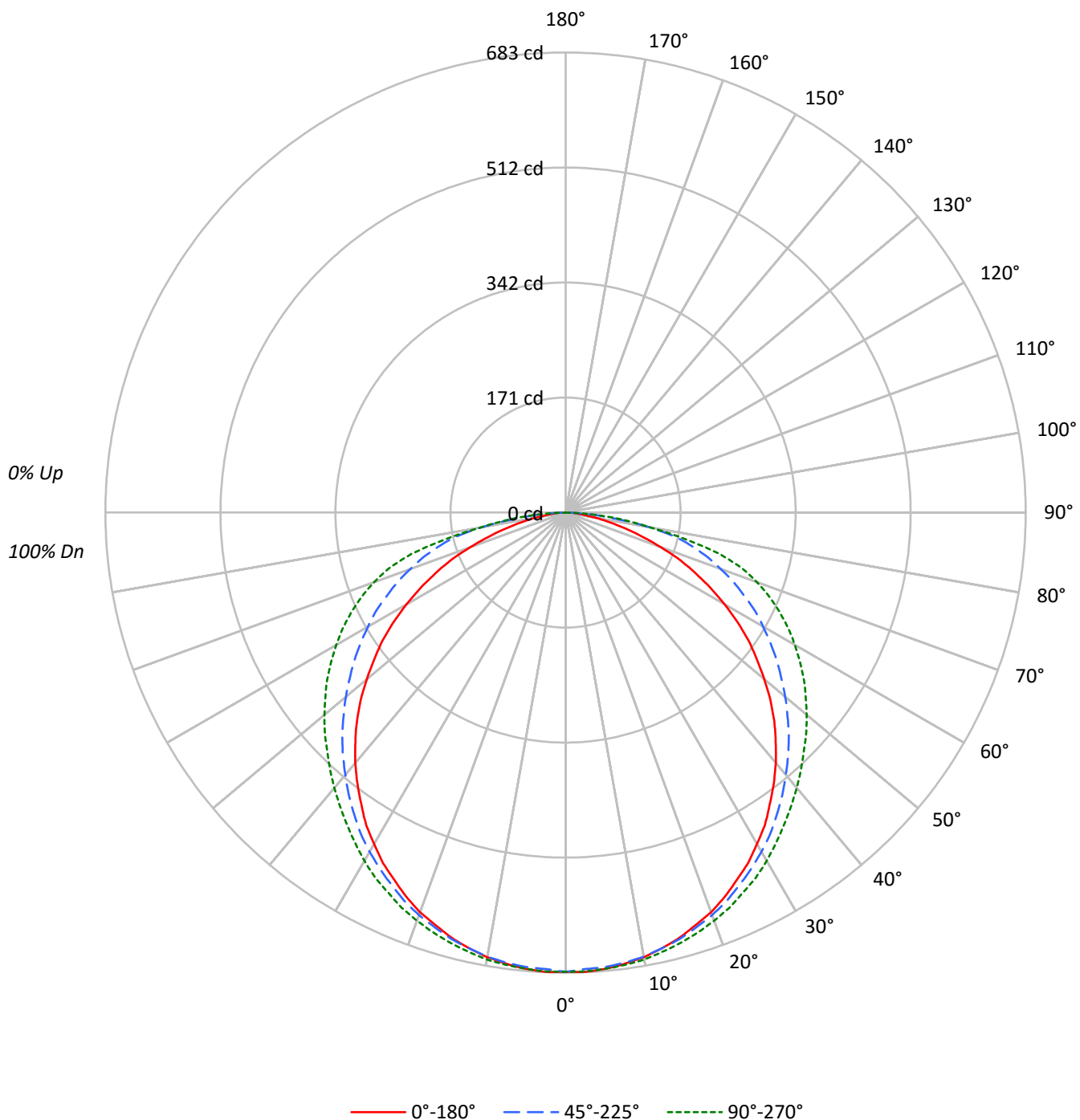
Input Watts (W): 28
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	917	917	917
5°	918	915	918
10°	916	915	921
15°	910	913	921
20°	904	911	923
25°	893	906	924
30°	883	903	928
35°	868	899	929
40°	853	893	938
45°	833	892	952
50°	807	891	978
55°	778	897	1013
60°	734	911	1058
65°	678	933	1117
70°	592	965	1190
75°	480	1015	1230
80°	354	995	995
85°	272	733	829



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.6	3.1
10°-20°	185.4	8.8
20°-30°	282.3	13.4
30°-40°	342.8	16.3
40°-50°	362.2	17.2
50°-60°	341.7	16.3
60°-70°	284.1	13.5
70°-80°	186.9	8.9
80°-90°	51.0	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°	532.3	25.3
0°-40°	875.1	41.7
0°-60°	1579.0	75.2
0°-90°	2101.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2101.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	682	682	682	682	682	
5°	680	680	677	680	680	65
15°	654	654	655	661	661	184
25°	602	605	610	621	623	278
35°	529	535	547	561	566	331
45°	438	447	469	492	500	337
55°	332	346	383	419	432	295
65°	213	238	293	336	351	210
75°	92	135	195	231	237	100
85°	18	39	48	53	54	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	681.7	681.7	681.7	681.7	681.7
2.5°	682.6	681.7	678.2	681.7	681.7
5°	679.9	679.9	677.3	679.9	679.9
7.5°	675.5	675.5	673.8	677.3	677.3
10°	670.2	670.2	669.4	673.8	673.8
12.5°	662.3	663.2	662.3	667.6	667.6
15°	653.5	654.4	655.3	661.4	661.4
17.5°	642.1	643.8	645.6	652.6	653.5
20°	631.5	632.4	635.9	643.8	644.7
22.5°	617.5	620.1	624.5	632.4	635.1
25°	601.6	605.1	610.4	621.0	622.7
27.5°	586.7	589.3	596.4	607.8	611.3
30°	568.2	572.6	581.4	592.8	597.2
32.5°	550.6	555.0	565.6	577.9	581.4
35°	528.6	534.8	547.1	561.2	565.6
37.5°	507.5	513.7	528.6	544.5	549.7
40°	485.5	492.6	508.4	526.9	533.9
42.5°	461.8	471.5	489.0	509.3	517.2
45°	438.0	446.8	468.8	491.7	500.5
47.5°	412.5	423.1	446.8	474.1	484.6
50°	385.3	398.4	425.7	455.6	467.1
52.5°	358.0	372.9	403.7	437.1	449.5
55°	331.6	345.7	382.6	418.7	431.9
57.5°	302.6	320.2	360.6	399.3	412.5
60°	272.7	292.0	338.6	379.1	393.2
62.5°	242.8	264.8	317.5	358.0	372.9
65°	212.9	237.5	292.9	336.0	351.0
67.5°	183.8	211.1	270.0	313.1	328.1
70°	150.4	184.7	245.4	287.6	302.6
72.5°	119.6	159.2	221.7	261.2	274.4
75°	92.4	134.6	195.3	231.3	236.6
77.5°	67.7	109.9	168.0	180.3	181.2
80°	45.7	88.0	128.4	126.7	128.4
82.5°	29.9	66.0	80.9	90.6	91.5
85°	17.6	38.7	47.5	52.8	53.7
87.5°	8.8	13.2	16.7	17.6	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)