

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: P307151

Luminaire Tested: **14FCZ2-35-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: P307151
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-35-UNV-L82765-HRP-CP250-W2A-U-2700K
Description: 1'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: 2176.0 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

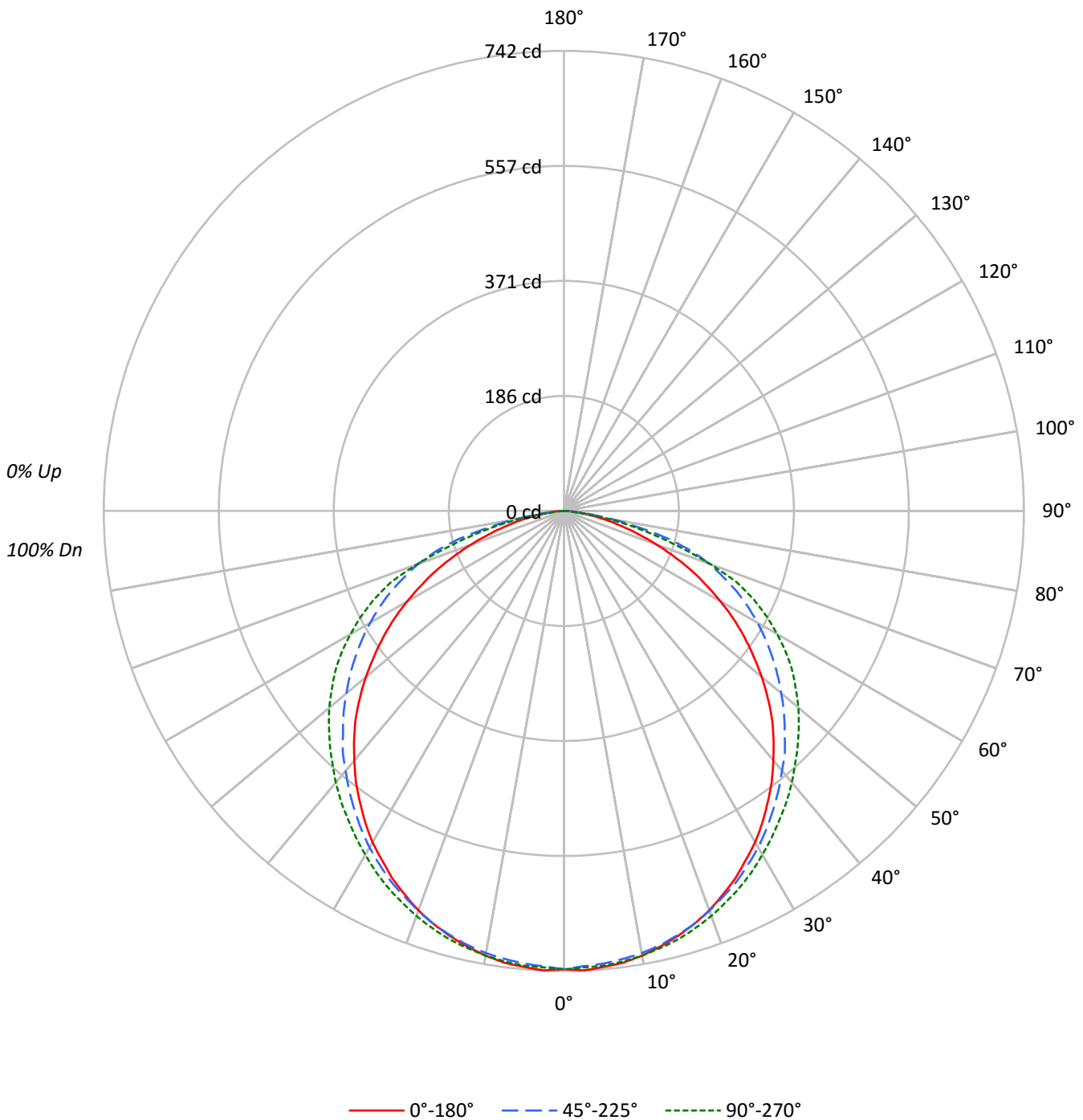
Input Watts (W): 29.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1989	1989	1989
5°	1994	1979	1989
10°	1989	1978	1989
15°	1977	1973	1992
20°	1963	1965	1991
25°	1942	1958	1991
30°	1918	1948	1990
35°	1884	1933	1994
40°	1846	1923	2009
45°	1807	1917	2031
50°	1744	1917	2068
55°	1669	1926	2112
60°	1569	1941	2139
65°	1447	1961	2152
70°	1260	1965	1981
75°	1039	1829	1601
80°	817	1314	1071
85°	633	506	253



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.0	3.2
10°-20°	200.7	9.2
20°-30°	304.9	14.0
30°-40°	369.4	17.0
40°-50°	389.3	17.9
50°-60°	363.4	16.7
60°-70°	290.4	13.3
70°-80°	159.8	7.3
80°-90°	28.2	1.3
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°	575.6	26.5
0°-40°	945.0	43.4
0°-60°	1697.6	78.0
0°-90°	2176.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2176.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	739	739	739	739	739	
5°	738	736	733	738	736	70
15°	710	710	708	715	715	200
25°	654	656	660	669	671	301
35°	573	579	588	604	607	359
45°	475	484	504	526	534	365
55°	356	374	410	439	450	318
65°	227	256	308	333	338	224
75°	100	143	176	158	154	108
85°	20	26	16	10	8	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	739.0	739.0	739.0	739.0	739.0
2.5°	741.7	739.7	734.9	739.0	736.9
5°	738.3	736.2	732.8	737.6	736.2
7.5°	734.9	732.1	728.7	734.2	732.8
10°	728.0	726.0	723.9	728.7	728.0
12.5°	719.8	719.1	717.1	722.6	721.9
15°	709.6	709.6	708.2	715.0	715.0
17.5°	698.6	697.9	698.6	706.1	705.5
20°	685.6	685.6	686.3	695.2	695.2
22.5°	669.9	670.6	672.6	683.6	682.9
25°	654.1	655.5	659.6	669.2	670.6
27.5°	635.0	638.4	643.2	654.8	656.2
30°	617.2	619.2	626.8	637.7	640.4
32.5°	596.0	600.1	608.3	620.6	624.0
35°	573.4	578.9	588.4	603.5	606.9
37.5°	550.8	555.6	568.6	584.3	590.5
40°	525.5	533.7	547.4	565.2	572.0
42.5°	500.9	509.1	527.6	546.0	552.2
45°	474.9	483.8	503.6	526.2	533.7
47.5°	446.1	456.4	481.7	505.7	513.9
50°	416.7	429.7	457.8	484.4	494.0
52.5°	385.9	402.3	434.5	462.5	471.4
55°	355.8	373.6	410.5	439.3	450.2
57.5°	325.0	344.2	385.9	418.8	424.9
60°	291.5	314.8	360.6	389.3	397.5
62.5°	258.6	285.3	334.6	362.0	368.8
65°	227.2	255.9	307.9	333.2	338.0
67.5°	193.0	227.2	278.5	301.8	303.1
70°	160.1	199.8	249.7	260.7	251.8
72.5°	128.0	170.4	216.2	207.3	199.8
75°	99.9	143.0	175.9	158.1	154.0
77.5°	73.9	117.0	125.9	116.3	108.8
80°	52.7	92.4	84.8	72.5	69.1
82.5°	36.3	58.2	46.5	36.3	31.5
85°	20.5	26.0	16.4	10.3	8.2
87.5°	8.9	6.2	3.4	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)