

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: P307469

Luminaire Tested: **14FCZ2-39-UNV-L82765-RDP-CP250-W2A-U-4000K**

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: P307469
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-39-UNV-L82765-RDP-CP250-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.250" POLYCARB SHEET
Light Source: (168) 4000K 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: 2210.0 lumens
Efficiency: N/A
Efficacy: 65.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

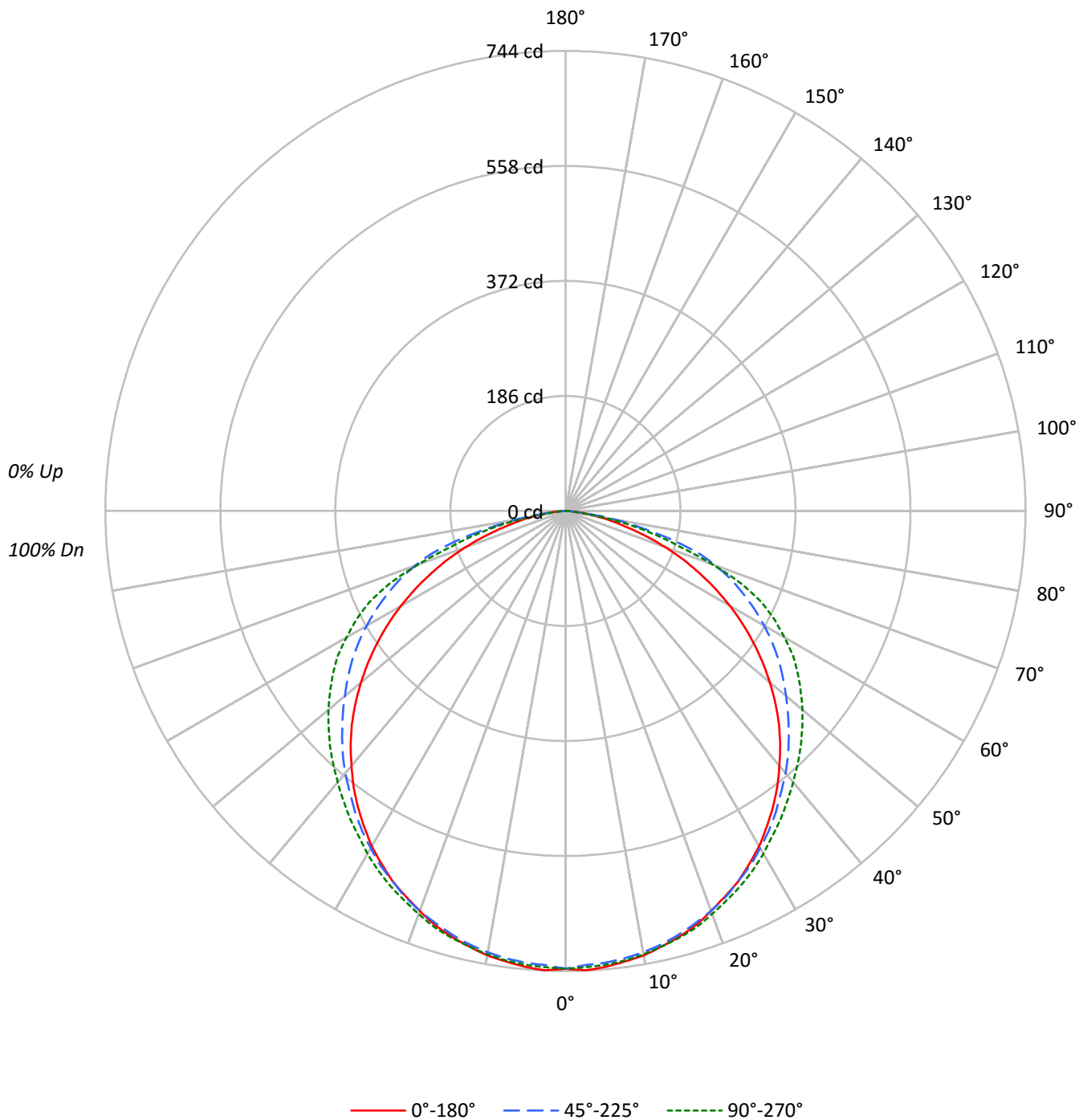
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91		93	91	88		84
2	99	90	83	77	96	88	82	76	85	79	75		81	77	73		69
3	90	79	71	64	87	77	70	63	74	68	62		71	66	61		58
4	82	70	61	54	80	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	50	42	35	62	50	41	35	48	40	35		47	40	35		32
8	60	46	37	31	58	45	37	31	44	36	31		43	36	31		29
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		26
10	52	39	31	25	51	38	31	25	37	30	25		36	30	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1992	1992	1992
5°	1999	1981	1990
10°	1994	1980	1990
15°	1985	1975	1990
20°	1971	1971	1986
25°	1962	1962	1988
30°	1946	1957	1989
35°	1921	1950	1995
40°	1891	1945	2012
45°	1858	1944	2049
50°	1806	1950	2095
55°	1741	1975	2153
60°	1653	1997	2201
65°	1527	2022	2230
70°	1357	2036	1995
75°	1094	1830	1597
80°	855	1283	1043
85°	587	374	266



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.1	3.2
10°-20°	201.0	9.1
20°-30°	306.1	13.8
30°-40°	372.8	16.9
40°-50°	395.5	17.9
50°-60°	373.3	16.9
60°-70°	301.4	13.6
70°-80°	163.5	7.4
80°-90°	26.5	1.2
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°	577.1	26.1
0°-40°	949.9	43.0
0°-60°	1718.7	77.8
0°-90°	2210.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2210.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	740	740	740	740	740	
5°	740	738	733	738	737	70
15°	713	711	709	714	714	201
25°	661	659	661	668	669	304
35°	585	588	594	606	607	366
45°	488	495	511	530	538	376
55°	371	386	421	449	459	331
65°	240	269	318	343	350	238
75°	105	154	176	159	154	115
85°	19	21	12	10	9	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	740.2	740.2	740.2	740.2	740.2
2.5°	743.6	740.2	735.0	740.2	738.5
5°	740.2	738.5	733.3	738.5	736.7
7.5°	735.0	735.0	729.8	733.3	733.3
10°	729.8	728.1	724.7	729.8	728.1
12.5°	721.2	719.5	717.8	722.9	721.2
15°	712.6	710.9	709.1	714.3	714.3
17.5°	702.2	700.5	698.8	705.7	705.7
20°	688.4	688.4	688.4	695.3	693.6
22.5°	674.6	674.6	676.3	683.2	681.5
25°	660.8	659.1	660.8	667.7	669.4
27.5°	643.6	645.3	647.0	653.9	655.6
30°	626.3	628.0	629.8	638.4	640.1
32.5°	605.6	609.1	612.5	622.9	622.9
35°	584.9	588.4	593.5	605.6	607.3
37.5°	562.5	565.9	572.8	586.6	590.1
40°	538.3	543.5	553.8	567.6	572.8
42.5°	514.2	521.1	533.1	548.7	555.6
45°	488.3	495.2	510.7	529.7	538.3
47.5°	460.7	469.3	488.3	512.4	519.3
50°	431.3	443.4	465.9	491.7	500.4
52.5°	402.0	415.8	443.4	471.0	479.7
55°	371.0	386.5	421.0	448.6	458.9
57.5°	339.9	357.2	396.8	426.2	436.5
60°	307.1	327.8	371.0	400.3	408.9
62.5°	274.3	298.5	345.1	374.4	381.3
65°	239.8	269.2	317.5	343.3	350.3
67.5°	207.0	241.6	289.9	308.8	308.8
70°	172.5	210.5	258.8	264.0	253.6
72.5°	138.0	181.2	224.3	205.3	196.7
75°	105.2	153.6	176.0	158.7	153.6
77.5°	79.4	124.2	124.2	113.9	110.4
80°	55.2	94.9	82.8	72.5	67.3
82.5°	36.2	53.5	43.1	34.5	29.3
85°	19.0	20.7	12.1	10.4	8.6
87.5°	6.9	3.5	1.7	3.5	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)