

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: P307430

Luminaire Tested: **14FCZ2-39-UNV-L82765-RDP-CA08-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: P307430
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-CA08-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" ACRYLIC 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: 2189.0 lumens
Efficiency: N/A
Efficacy: 65.7 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

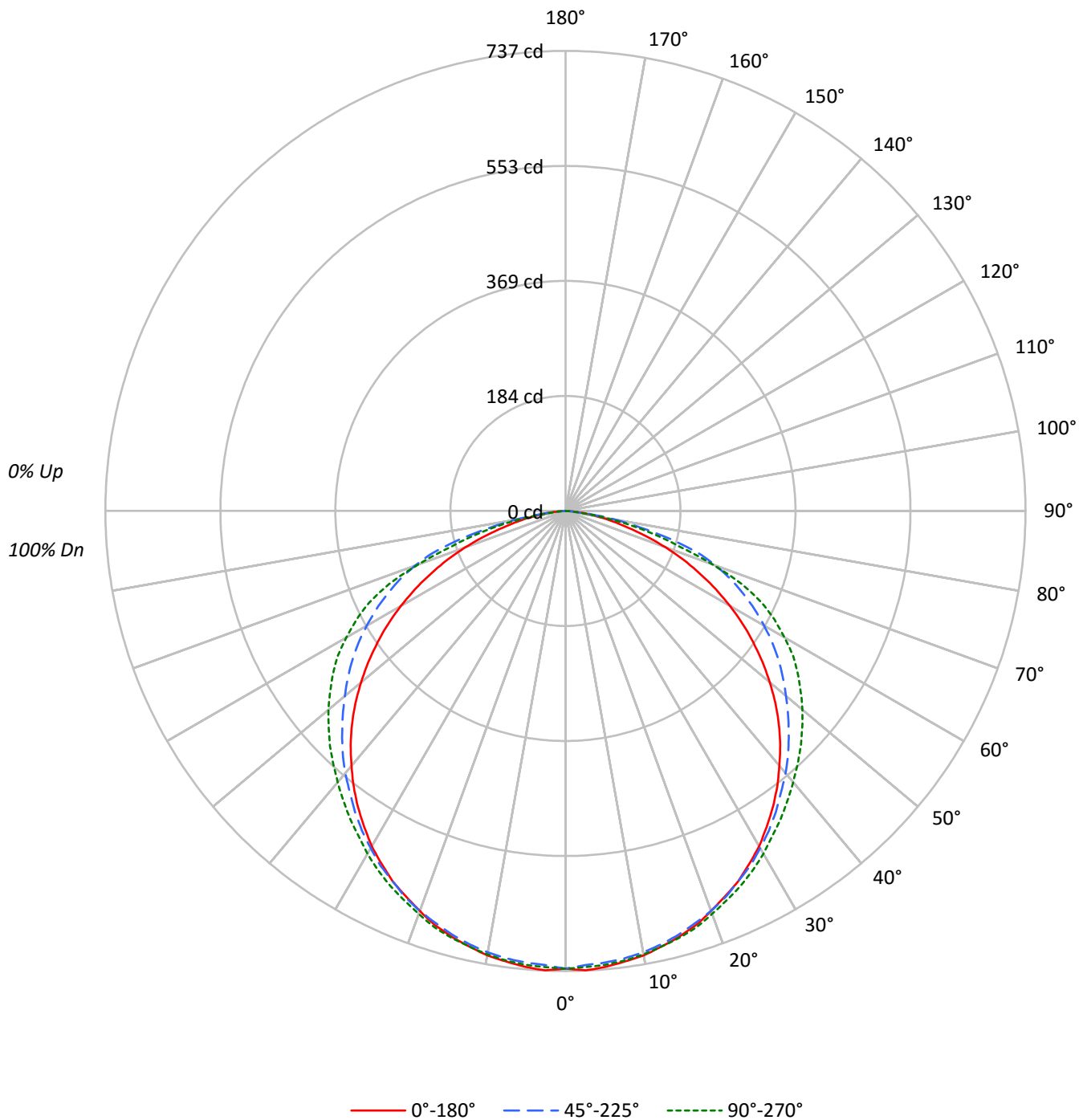
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1973	1973	1973
5°	1981	1962	1971
10°	1975	1961	1971
15°	1966	1957	1971
20°	1953	1953	1967
25°	1943	1943	1969
30°	1928	1938	1970
35°	1903	1931	1976
40°	1873	1927	1993
45°	1840	1925	2029
50°	1788	1932	2075
55°	1724	1956	2133
60°	1637	1977	2180
65°	1512	2003	2209
70°	1345	2017	1976
75°	1083	1812	1581
80°	848	1271	1034
85°	580	371	262



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.4	3.2
10°-20°	199.1	9.1
20°-30°	303.2	13.8
30°-40°	369.2	16.9
40°-50°	391.7	17.9
50°-60°	369.7	16.9
60°-70°	298.5	13.6
70°-80°	161.9	7.4
80°-90°	26.2	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°	571.6	26.1
0°-40°	940.9	43.0
0°-60°	1702.4	77.8
0°-90°	2189.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2189.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	733	733	733	733	733	
5°	733	731	726	731	730	70
15°	706	704	702	708	708	199
25°	654	653	654	661	663	301
35°	579	583	588	600	602	362
45°	484	490	506	525	533	372
55°	367	383	417	444	455	328
65°	238	267	314	340	347	235
75°	104	152	174	157	152	114
85°	19	20	12	10	8	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	733.2	733.2	733.2	733.2	733.2
2.5°	736.6	733.2	728.0	733.2	731.4
5°	733.2	731.4	726.3	731.4	729.7
7.5°	728.0	728.0	722.9	726.3	726.3
10°	722.9	721.2	717.8	722.9	721.2
12.5°	714.4	712.6	710.9	716.1	714.4
15°	705.8	704.1	702.4	707.5	707.5
17.5°	695.6	693.8	692.1	699.0	699.0
20°	681.9	681.9	681.9	688.7	687.0
22.5°	668.2	668.2	669.9	676.8	675.0
25°	654.5	652.8	654.5	661.4	663.1
27.5°	637.4	639.2	640.9	647.7	649.4
30°	620.4	622.1	623.8	632.3	634.0
32.5°	599.9	603.3	606.7	616.9	616.9
35°	579.3	582.8	587.9	599.9	601.6
37.5°	557.1	560.5	567.4	581.1	584.5
40°	533.2	538.3	548.6	562.3	567.4
42.5°	509.3	516.1	528.1	543.5	550.3
45°	483.6	490.5	505.9	524.7	533.2
47.5°	456.3	464.8	483.6	507.6	514.4
50°	427.2	439.2	461.4	487.1	495.6
52.5°	398.2	411.9	439.2	466.6	475.1
55°	367.4	382.8	417.0	444.3	454.6
57.5°	336.7	353.8	393.1	422.1	432.4
60°	304.2	324.7	367.4	396.5	405.0
62.5°	271.7	295.7	341.8	370.8	377.7
65°	237.5	266.6	314.5	340.1	346.9
67.5°	205.1	239.3	287.1	305.9	305.9
70°	170.9	208.5	256.3	261.5	251.2
72.5°	136.7	179.4	222.2	203.4	194.8
75°	104.2	152.1	174.3	157.2	152.1
77.5°	78.6	123.0	123.0	112.8	109.4
80°	54.7	94.0	82.0	71.8	66.7
82.5°	35.9	53.0	42.7	34.2	29.1
85°	18.8	20.5	12.0	10.3	8.5
87.5°	6.8	3.4	1.7	3.4	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)