

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: P307459

Luminaire Tested: **14FCZ2-39-UNV-L82765-RDP-CP187-W2A-U-3500K**

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: P307459
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-CP187-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.187" POLYCARB SHEET
Light Source: (168) 3500K 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: 2180.0 lumens
Efficiency: N/A
Efficacy: 65.1 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

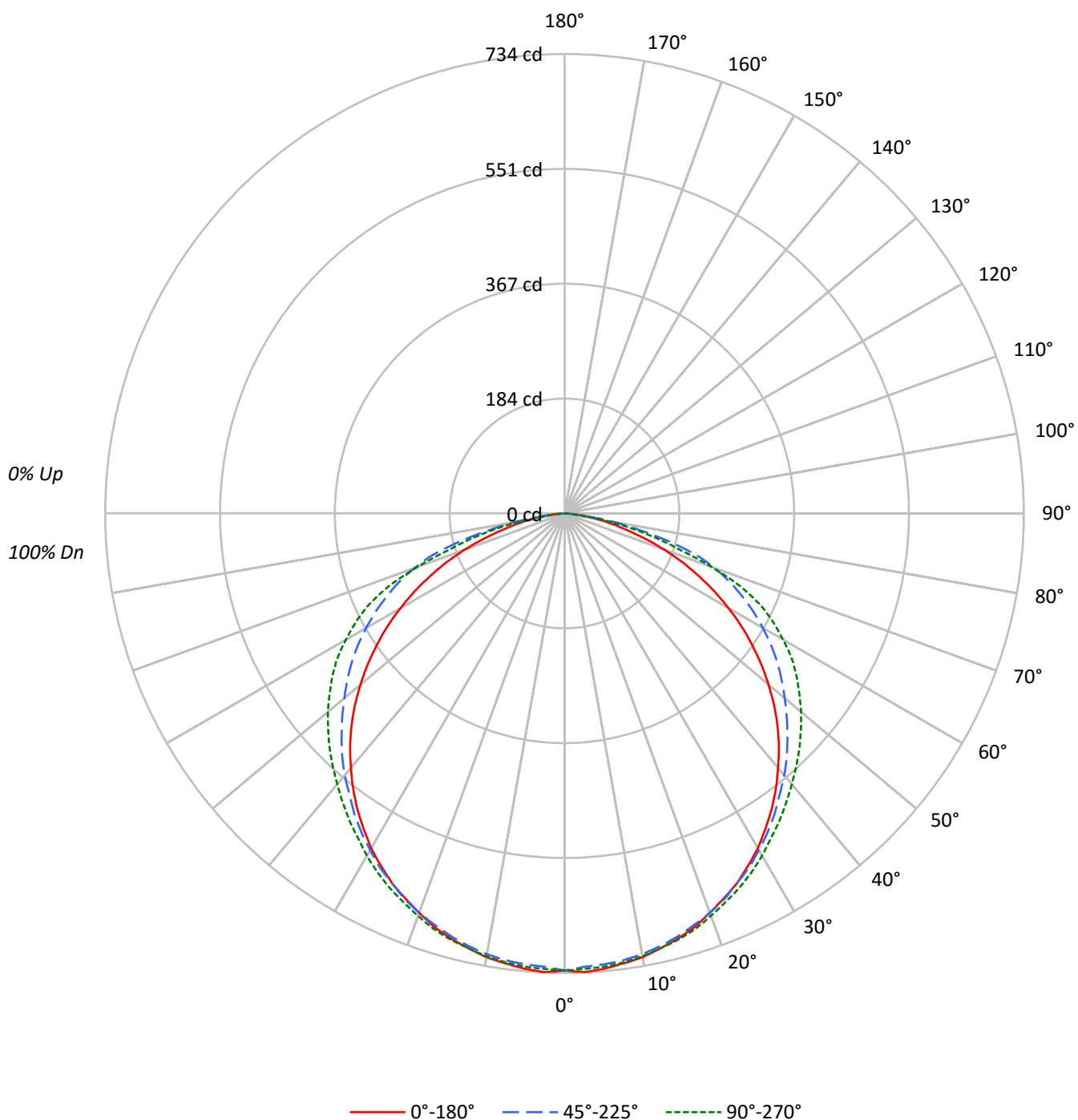
Input Watts (W): 33.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1965	1965	1965
5°	1972	1954	1963
10°	1967	1953	1962
15°	1958	1949	1963
20°	1945	1945	1959
25°	1935	1935	1961
30°	1920	1930	1962
35°	1895	1923	1968
40°	1865	1919	1985
45°	1833	1917	2021
50°	1781	1924	2066
55°	1717	1948	2124
60°	1630	1969	2171
65°	1507	1994	2200
70°	1339	2009	1969
75°	1079	1805	1575
80°	845	1266	1029
85°	577	367	262



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.1	3.2
10°-20°	198.3	9.1
20°-30°	301.9	13.8
30°-40°	367.7	16.9
40°-50°	390.1	17.9
50°-60°	368.2	16.9
60°-70°	297.3	13.6
70°-80°	161.3	7.4
80°-90°	26.1	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°	569.3	26.1
0°-40°	937.0	43.0
0°-60°	1695.3	77.8
0°-90°	2180.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2180.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	730	728	723	728	727	69
15°	703	701	700	705	705	198
25°	652	650	652	659	660	300
35°	577	580	586	597	599	361
45°	482	488	504	522	531	371
55°	366	381	415	442	453	327
65°	237	266	313	339	346	234
75°	104	152	174	157	152	113
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°	730.1	730.1	730.1	730.1	730.1
2.5°	733.5	730.1	725.0	730.1	728.4
5°	730.1	728.4	723.3	728.4	726.7
7.5°	725.0	725.0	719.9	723.3	723.3
10°	719.9	718.2	714.8	719.9	718.2
12.5°	711.4	709.7	708.0	713.1	711.4
15°	702.9	701.2	699.5	704.6	704.6
17.5°	692.7	691.0	689.3	696.1	696.1
20°	679.1	679.1	679.1	685.9	684.2
22.5°	665.5	665.5	667.2	674.0	672.3
25°	651.8	650.1	651.8	658.7	660.4
27.5°	634.8	636.5	638.2	645.0	646.7
30°	617.8	619.5	621.2	629.7	631.4
32.5°	597.4	600.8	604.2	614.4	614.4
35°	577.0	580.4	585.5	597.4	599.1
37.5°	554.8	558.2	565.0	578.7	582.1
40°	531.0	536.1	546.3	559.9	565.0
42.5°	507.2	514.0	525.9	541.2	548.0
45°	481.7	488.5	503.8	522.5	531.0
47.5°	454.4	462.9	481.7	505.5	512.3
50°	425.5	437.4	459.5	485.1	493.6
52.5°	396.6	410.2	437.4	464.6	473.1
55°	365.9	381.2	415.3	442.5	452.7
57.5°	335.3	352.3	391.4	420.4	430.6
60°	302.9	323.4	365.9	394.9	403.4
62.5°	270.6	294.4	340.4	369.3	376.1
65°	236.6	265.5	313.2	338.7	345.5
67.5°	204.2	238.3	285.9	304.6	304.6
70°	170.2	207.6	255.3	260.4	250.2
72.5°	136.2	178.7	221.3	202.5	194.0
75°	103.8	151.5	173.6	156.6	151.5
77.5°	78.3	122.5	122.5	112.3	108.9
80°	54.5	93.6	81.7	71.5	66.4
82.5°	35.7	52.8	42.5	34.0	28.9
85°	18.7	20.4	11.9	10.2	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)