

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: P307195

Luminaire Tested: **14FCZ2-39-UNV-L82765-HRP-CP187-W2A-U-6500K**

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: P307195
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: 14FCZ2-39-UNV-L82765-HRP-CP187-W2A-U-6500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 6500K 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: 2758.0 lumens
Efficiency: N/A
Efficacy: 79.3 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

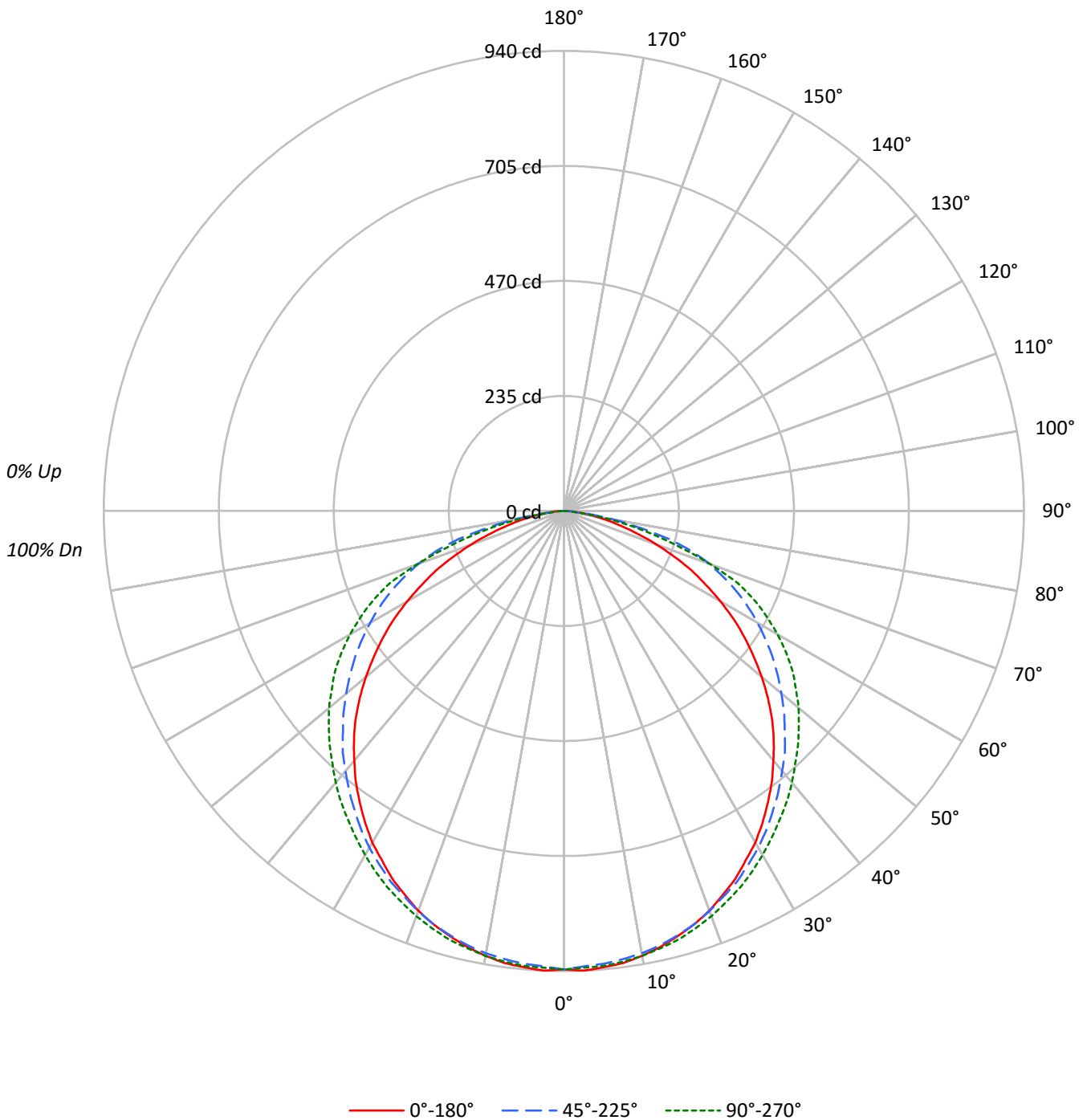
Input Watts (W): 34.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2520	2520	2520
5°	2528	2509	2521
10°	2522	2507	2522
15°	2505	2501	2525
20°	2489	2491	2523
25°	2462	2482	2523
30°	2431	2468	2522
35°	2388	2450	2527
40°	2340	2437	2547
45°	2291	2429	2575
50°	2211	2429	2622
55°	2116	2441	2677
60°	1988	2460	2712
65°	1833	2485	2728
70°	1596	2490	2511
75°	1316	2318	2028
80°	1035	1666	1358
85°	803	642	321



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.7	3.2
10°-20°	254.4	9.2
20°-30°	386.4	14.0
30°-40°	468.2	17.0
40°-50°	493.4	17.9
50°-60°	460.6	16.7
60°-70°	368.1	13.3
70°-80°	202.5	7.3
80°-90°	35.8	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°	729.5	26.5
0°-40°	1197.7	43.4
0°-60°	2151.6	78.0
0°-90°	2758.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2758.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	937	937	937	937	937	
5°	936	933	929	935	933	89
15°	899	899	898	906	906	254
25°	829	831	836	848	850	382
35°	727	734	746	765	769	455
45°	602	613	638	667	676	463
55°	451	474	520	557	571	403
65°	288	324	390	422	428	283
75°	127	181	223	200	195	136
85°	26	33	21	13	10	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	936.6	936.6	936.6	936.6	936.6
2.5°	940.1	937.5	931.4	936.6	934.0
5°	935.8	933.2	928.8	934.9	933.2
7.5°	931.4	928.0	923.6	930.6	928.8
10°	922.8	920.2	917.6	923.6	922.8
12.5°	912.3	911.5	908.9	915.8	914.9
15°	899.3	899.3	897.6	906.3	906.3
17.5°	885.5	884.6	885.5	895.0	894.1
20°	869.0	869.0	869.9	881.1	881.1
22.5°	849.0	849.9	852.5	866.4	865.5
25°	829.1	830.8	836.0	848.2	849.9
27.5°	804.8	809.1	815.2	830.0	831.7
30°	782.3	784.9	794.4	808.3	811.7
32.5°	755.4	760.6	771.0	786.6	790.9
35°	726.8	733.7	745.8	764.9	769.3
37.5°	698.1	704.2	720.7	740.6	748.4
40°	666.0	676.5	693.8	716.3	725.0
42.5°	634.8	645.2	668.7	692.1	699.9
45°	601.9	613.1	638.3	666.9	676.5
47.5°	565.4	578.5	610.5	640.9	651.3
50°	528.2	544.6	580.2	614.0	626.2
52.5°	489.1	509.9	550.7	586.3	597.5
55°	451.0	473.5	520.4	556.8	570.7
57.5°	411.9	436.2	489.1	530.8	538.6
60°	369.4	398.9	457.0	493.5	503.9
62.5°	327.8	361.6	424.1	458.8	467.4
65°	287.9	324.4	390.3	422.4	428.4
67.5°	244.6	287.9	353.0	382.5	384.2
70°	202.9	253.2	316.5	330.4	319.1
72.5°	162.2	215.9	274.1	262.8	253.2
75°	126.6	181.3	222.9	200.3	195.1
77.5°	93.7	148.3	159.6	147.4	137.9
80°	66.8	117.1	107.5	91.9	87.6
82.5°	46.0	73.7	59.0	46.0	39.9
85°	26.0	33.0	20.8	13.0	10.4
87.5°	11.3	7.8	4.3	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)