

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: P307236

Luminaire Tested: **14FCZ2-44-UNV-L82765-HRP-CP187-W2A-U-4500K**

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: P307236
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: 14FCZ2-44-UNV-L82765-HRP-CP187-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 4500K 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: 2997.0 lumens
Efficiency: N/A
Efficacy: 76.8 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

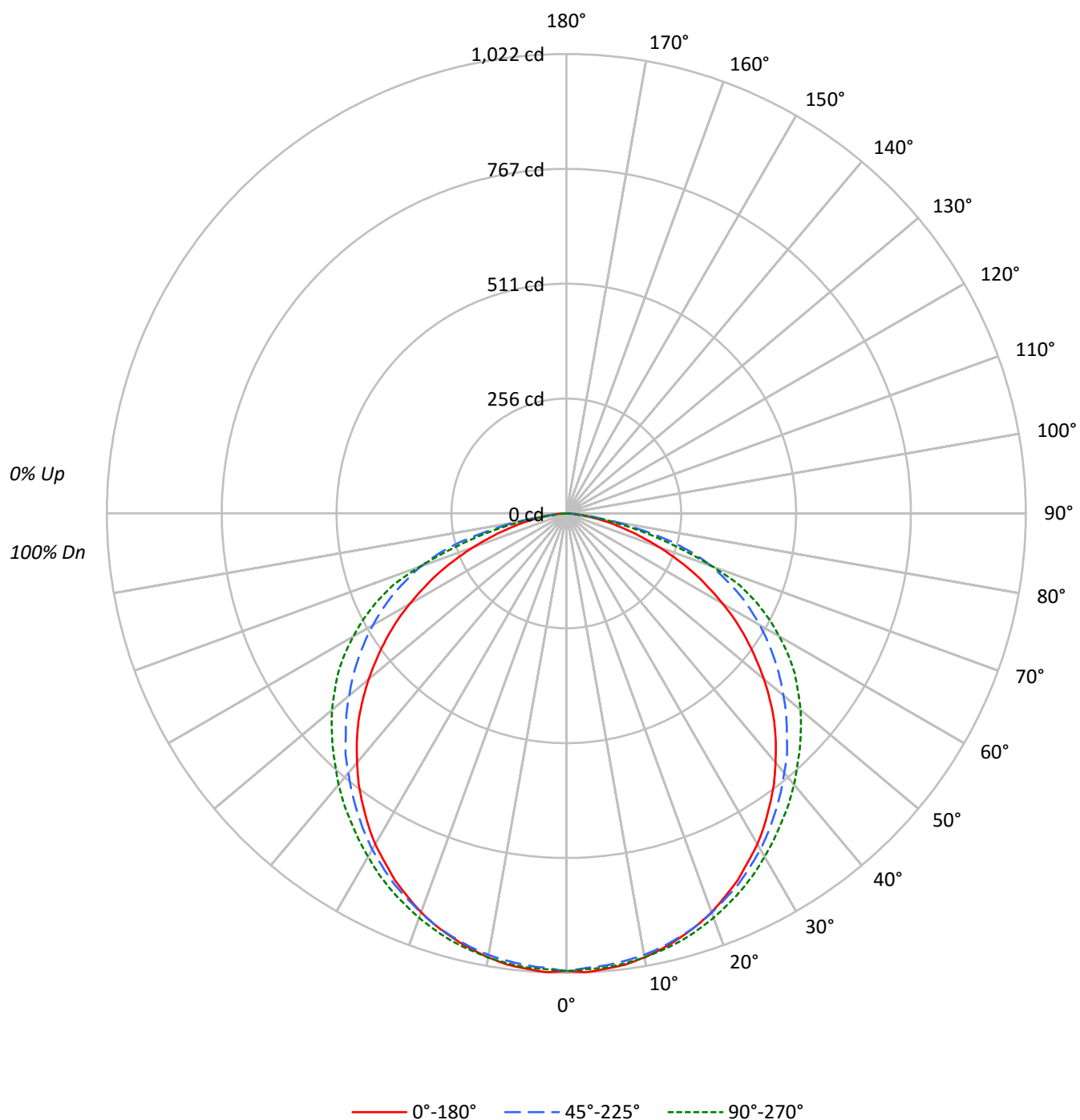
Input Watts (W): 39
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	78	96	88	82	77	85	79	75		82	77	73		69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	69	56	47	40	68	55	46	40	53	45	40		51	45	39		37
7	64	51	42	36	63	50	41	35	48	41	35		47	40	35		33
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	38	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2739	2739	2739
5°	2747	2726	2739
10°	2740	2725	2740
15°	2723	2717	2744
20°	2704	2707	2742
25°	2675	2697	2742
30°	2641	2682	2741
35°	2594	2663	2746
40°	2543	2648	2767
45°	2489	2640	2798
50°	2403	2640	2848
55°	2299	2653	2909
60°	2161	2673	2947
65°	1992	2700	2964
70°	1735	2707	2729
75°	1431	2518	2204
80°	1125	1812	1475
85°	874	698	349



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.4	3.2
10°-20°	276.5	9.2
20°-30°	419.9	14.0
30°-40°	508.8	17.0
40°-50°	536.1	17.9
50°-60°	500.5	16.7
60°-70°	400.0	13.3
70°-80°	220.1	7.3
80°-90°	38.9	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°	792.7	26.5
0°-40°	1301.5	43.4
0°-60°	2338.1	78.0
0°-90°	2997.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2997.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1018	1018	1018	1018	1018	
5°	1017	1014	1009	1016	1014	97
15°	977	977	975	985	985	276
25°	901	903	908	922	924	415
35°	790	797	810	831	836	494
45°	654	666	694	725	735	503
55°	490	515	565	605	620	437
65°	313	352	424	459	466	308
75°	138	197	242	218	212	148
85°	28	36	23	14	11	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1017.8	1017.8	1017.8	1017.8	1017.8
2.5°	1021.6	1018.7	1012.1	1017.8	1015.0
5°	1016.9	1014.0	1009.3	1015.9	1014.0
7.5°	1012.1	1008.4	1003.7	1011.2	1009.3
10°	1002.7	999.9	997.1	1003.7	1002.7
12.5°	991.4	990.5	987.6	995.2	994.2
15°	977.3	977.3	975.4	984.8	984.8
17.5°	962.2	961.3	962.2	972.6	971.6
20°	944.3	944.3	945.2	957.5	957.5
22.5°	922.6	923.6	926.4	941.5	940.5
25°	900.9	902.8	908.5	921.7	923.6
27.5°	874.6	879.3	885.9	901.9	903.8
30°	850.0	852.9	863.2	878.3	882.1
32.5°	820.8	826.5	837.8	854.8	859.5
35°	789.7	797.3	810.5	831.2	835.9
37.5°	758.6	765.2	783.1	804.8	813.3
40°	723.8	735.1	753.9	778.4	787.8
42.5°	689.8	701.1	726.6	752.0	760.5
45°	654.0	666.3	693.6	724.7	735.1
47.5°	614.4	628.6	663.5	696.4	707.7
50°	573.9	591.8	630.5	667.2	680.4
52.5°	531.5	554.1	598.4	637.1	649.3
55°	490.1	514.6	565.4	605.0	620.1
57.5°	447.6	474.0	531.5	576.8	585.2
60°	401.5	433.5	496.6	536.2	547.5
62.5°	356.2	393.0	460.8	498.5	508.0
65°	312.9	352.5	424.1	459.0	465.5
67.5°	265.8	312.9	383.6	415.6	417.5
70°	220.5	275.2	344.0	359.1	346.8
72.5°	176.2	234.7	297.8	285.5	275.2
75°	137.6	197.0	242.2	217.7	212.0
77.5°	101.8	161.2	173.4	160.2	149.8
80°	72.6	127.2	116.9	99.9	95.2
82.5°	49.9	80.1	64.1	49.9	43.4
85°	28.3	35.8	22.6	14.1	11.3
87.5°	12.3	8.5	4.7	3.8	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)