

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: P307208

Luminaire Tested: **14FCZ2-44-UNV-L82765-HRP-CA08-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: P307208
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-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC 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: 3147.0 lumens
Efficiency: N/A
Efficacy: 81.3 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

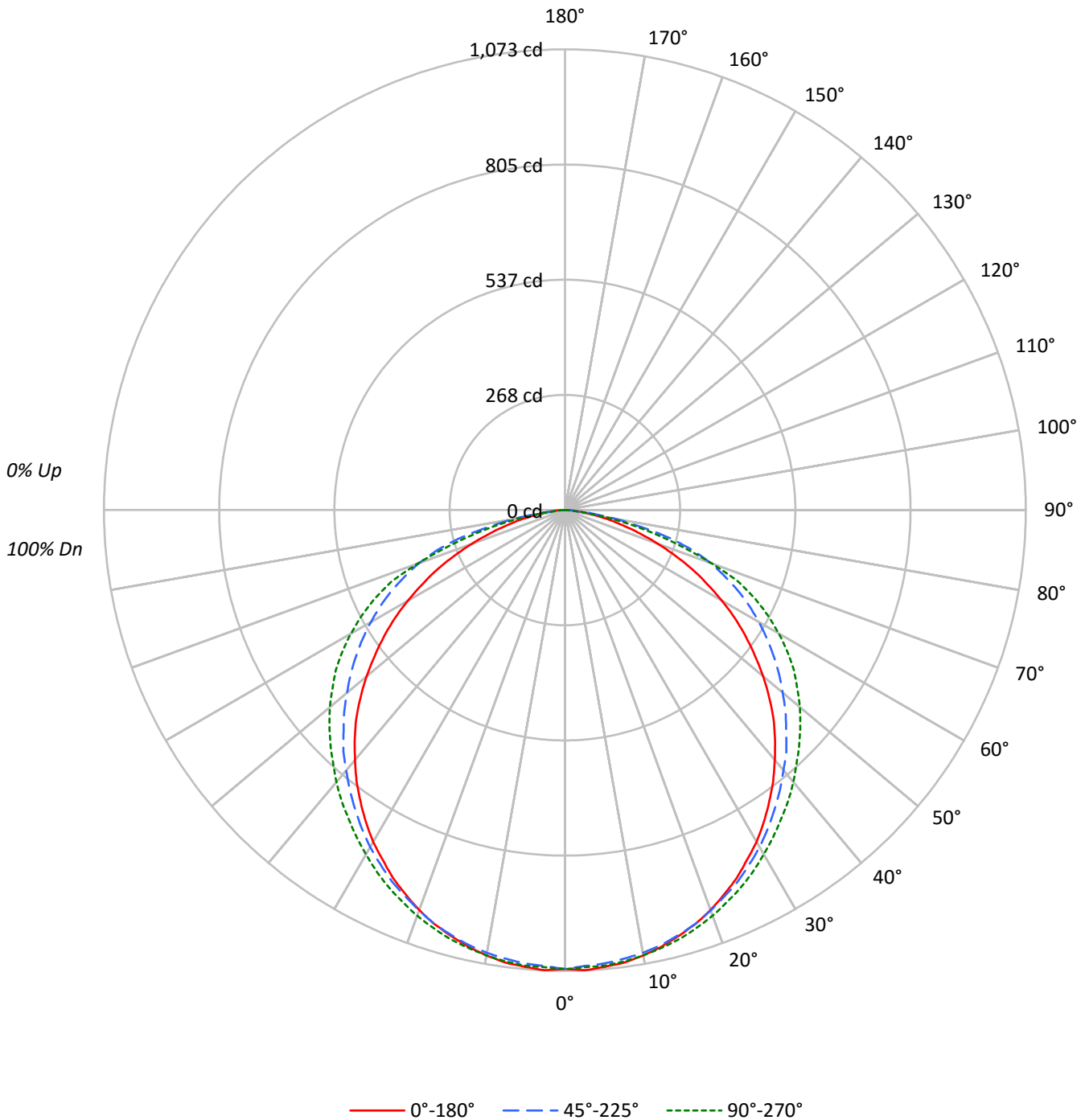
Input Watts (W): 38.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	2876	2876	2876
5°	2884	2863	2876
10°	2877	2861	2877
15°	2859	2853	2881
20°	2840	2842	2879
25°	2809	2832	2879
30°	2774	2816	2878
35°	2724	2796	2883
40°	2670	2781	2906
45°	2614	2772	2938
50°	2523	2771	2991
55°	2414	2785	3055
60°	2269	2807	3094
65°	2092	2835	3112
70°	1822	2842	2865
75°	1502	2644	2315
80°	1181	1901	1548
85°	917	732	367



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.2	3.2
10°-20°	290.3	9.2
20°-30°	440.9	14.0
30°-40°	534.2	17.0
40°-50°	562.9	17.9
50°-60°	525.5	16.7
60°-70°	420.0	13.3
70°-80°	231.1	7.3
80°-90°	40.8	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°	832.4	26.5
0°-40°	1366.6	43.4
0°-60°	2455.1	78.0
0°-90°	3147.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3147.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1069	1069	1069	1069	1069	
5°	1068	1065	1060	1067	1065	101
15°	1026	1026	1024	1034	1034	290
25°	946	948	954	968	970	436
35°	829	837	851	873	878	519
45°	687	700	728	761	772	528
55°	515	540	594	635	651	459
65°	328	370	445	482	489	323
75°	144	207	254	229	223	156
85°	30	38	24	15	12	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1068.7	1068.7	1068.7	1068.7	1068.7
2.5°	1072.7	1069.7	1062.8	1068.7	1065.8
5°	1067.7	1064.8	1059.8	1066.8	1064.8
7.5°	1062.8	1058.8	1053.9	1061.8	1059.8
10°	1052.9	1049.9	1047.0	1053.9	1052.9
12.5°	1041.0	1040.0	1037.1	1045.0	1044.0
15°	1026.2	1026.2	1024.2	1034.1	1034.1
17.5°	1010.4	1009.4	1010.4	1021.2	1020.2
20°	991.6	991.6	992.5	1005.4	1005.4
22.5°	968.8	969.8	972.7	988.6	987.6
25°	946.0	948.0	953.9	967.8	969.8
27.5°	918.3	923.3	930.2	947.0	949.0
30°	892.6	895.6	906.4	922.3	926.2
32.5°	861.9	867.9	879.7	897.5	902.5
35°	829.3	837.2	851.0	872.8	877.7
37.5°	796.6	803.5	822.3	845.1	854.0
40°	760.0	771.9	791.7	817.4	827.3
42.5°	724.4	736.2	763.0	789.7	798.6
45°	686.8	699.6	728.3	761.0	771.9
47.5°	645.2	660.0	696.7	731.3	743.2
50°	602.6	621.5	662.0	700.6	714.5
52.5°	558.1	581.9	628.4	669.0	681.8
55°	514.6	540.3	593.7	635.3	651.1
57.5°	470.0	497.8	558.1	605.6	614.5
60°	421.6	455.2	521.5	563.1	574.9
62.5°	374.1	412.7	483.9	523.5	533.4
65°	328.5	370.1	445.3	481.9	488.8
67.5°	279.1	328.5	402.8	436.4	438.4
70°	231.6	289.0	361.2	377.0	364.2
72.5°	185.0	246.4	312.7	299.8	289.0
75°	144.5	206.8	254.3	228.6	222.7
77.5°	106.9	169.2	182.1	168.2	157.3
80°	76.2	133.6	122.7	104.9	99.9
82.5°	52.4	84.1	67.3	52.4	45.5
85°	29.7	37.6	23.7	14.8	11.9
87.5°	12.9	8.9	4.9	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)