

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: P307209

Luminaire Tested: **14FCZ2-44-UNV-L82765-HRP-CA08-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: P307209
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-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC 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: 3202.0 lumens
Efficiency: N/A
Efficacy: 82.1 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

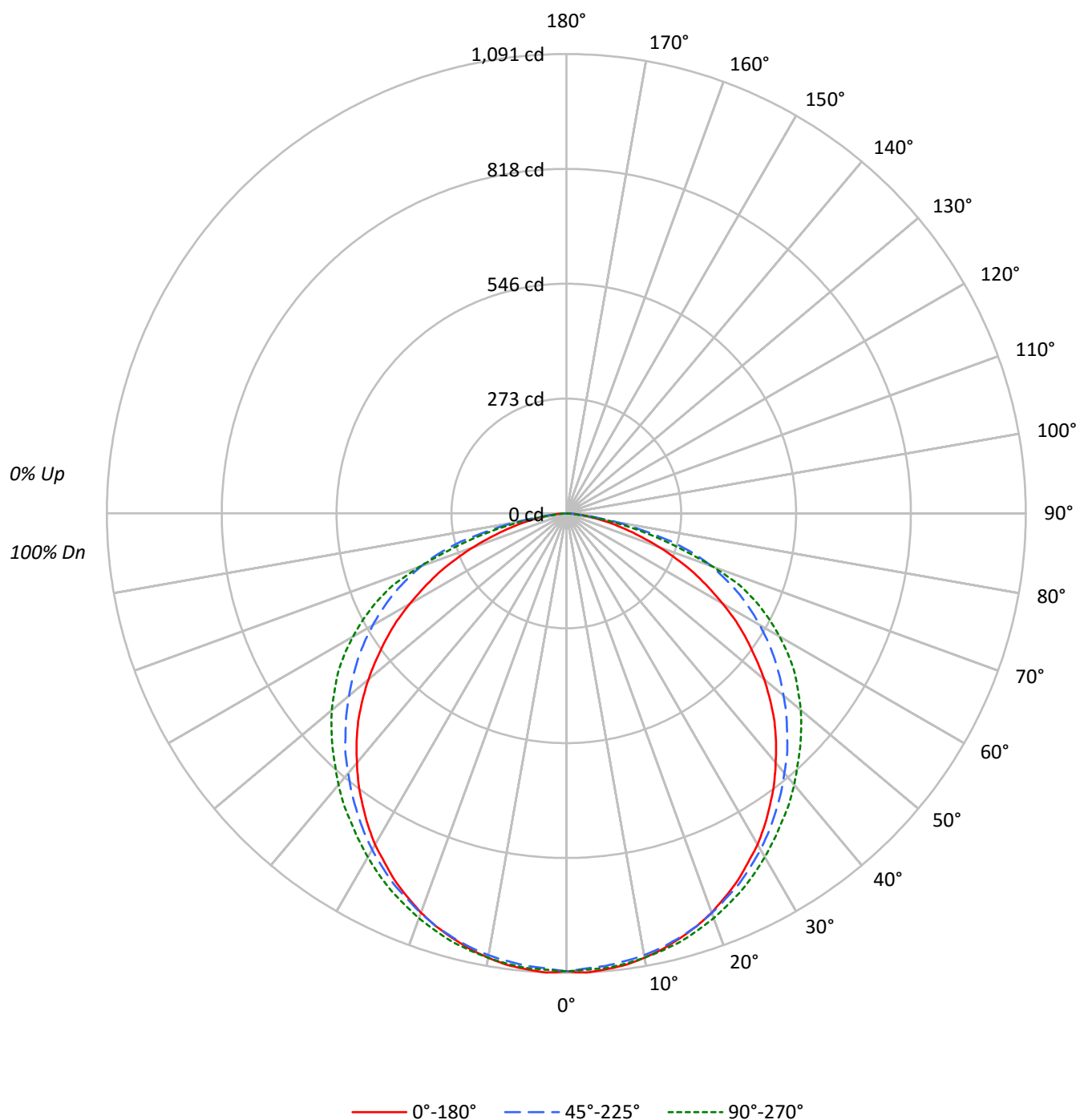
Input Watts (W): 39
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2926	2926	2926
5°	2935	2913	2927
10°	2927	2911	2927
15°	2909	2903	2931
20°	2889	2892	2930
25°	2858	2882	2930
30°	2822	2866	2928
35°	2772	2845	2934
40°	2716	2830	2957
45°	2659	2820	2989
50°	2567	2820	3044
55°	2457	2834	3108
60°	2308	2856	3148
65°	2129	2885	3167
70°	1854	2891	2915
75°	1528	2691	2355
80°	1201	1936	1576
85°	932	747	374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.9	3.2
10°-20°	295.4	9.2
20°-30°	448.6	14.0
30°-40°	543.6	17.0
40°-50°	572.8	17.9
50°-60°	534.7	16.7
60°-70°	427.3	13.3
70°-80°	235.1	7.3
80°-90°	41.5	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°	847.0	26.5
0°-40°	1390.5	43.4
0°-60°	2498.0	78.0
0°-90°	3202.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3202.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1087	1087	1087	1087	1087	
5°	1086	1083	1078	1085	1083	103
15°	1044	1044	1042	1052	1052	295
25°	963	965	971	985	987	443
35°	844	852	866	888	893	528
45°	699	712	741	774	785	538
55°	524	550	604	646	662	467
65°	334	377	453	490	497	329
75°	147	210	259	233	226	158
85°	30	38	24	15	12	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1087.4	1087.4	1087.4	1087.4	1087.4
2.5°	1091.4	1088.4	1081.4	1087.4	1084.4
5°	1086.4	1083.4	1078.4	1085.4	1083.4
7.5°	1081.4	1077.3	1072.3	1080.4	1078.4
10°	1071.3	1068.3	1065.3	1072.3	1071.3
12.5°	1059.2	1058.2	1055.2	1063.3	1062.2
15°	1044.1	1044.1	1042.1	1052.2	1052.2
17.5°	1028.0	1027.0	1028.0	1039.1	1038.1
20°	1008.9	1008.9	1009.9	1023.0	1023.0
22.5°	985.7	986.7	989.7	1005.9	1004.9
25°	962.6	964.6	970.6	984.7	986.7
27.5°	934.4	939.4	946.5	963.6	965.6
30°	908.2	911.2	922.3	938.4	942.4
32.5°	877.0	883.0	895.1	913.2	918.3
35°	843.8	851.8	865.9	888.1	893.1
37.5°	810.5	817.6	836.7	859.9	868.9
40°	773.3	785.4	805.5	831.7	841.7
42.5°	737.0	749.1	776.3	803.5	812.5
45°	698.8	711.9	741.1	774.3	785.4
47.5°	656.5	671.6	708.8	744.1	756.2
50°	613.2	632.3	673.6	712.9	727.0
52.5°	567.9	592.0	639.4	680.6	693.7
55°	523.6	549.7	604.1	646.4	662.5
57.5°	478.3	506.5	567.9	616.2	625.3
60°	428.9	463.2	530.6	572.9	585.0
62.5°	380.6	419.9	492.4	532.6	542.7
65°	334.3	376.6	453.1	490.3	497.4
67.5°	283.9	334.3	409.8	444.0	446.0
70°	235.6	294.0	367.5	383.6	370.5
72.5°	188.3	250.7	318.2	305.1	294.0
75°	147.0	210.4	258.8	232.6	226.5
77.5°	108.7	172.2	185.3	171.2	160.1
80°	77.5	135.9	124.9	106.7	101.7
82.5°	53.4	85.6	68.5	53.4	46.3
85°	30.2	38.3	24.2	15.1	12.1
87.5°	13.1	9.1	5.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)