

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: P311968

Luminaire Tested: **14FCZ2-44-UNV-L83050-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: P311968
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-L83050-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

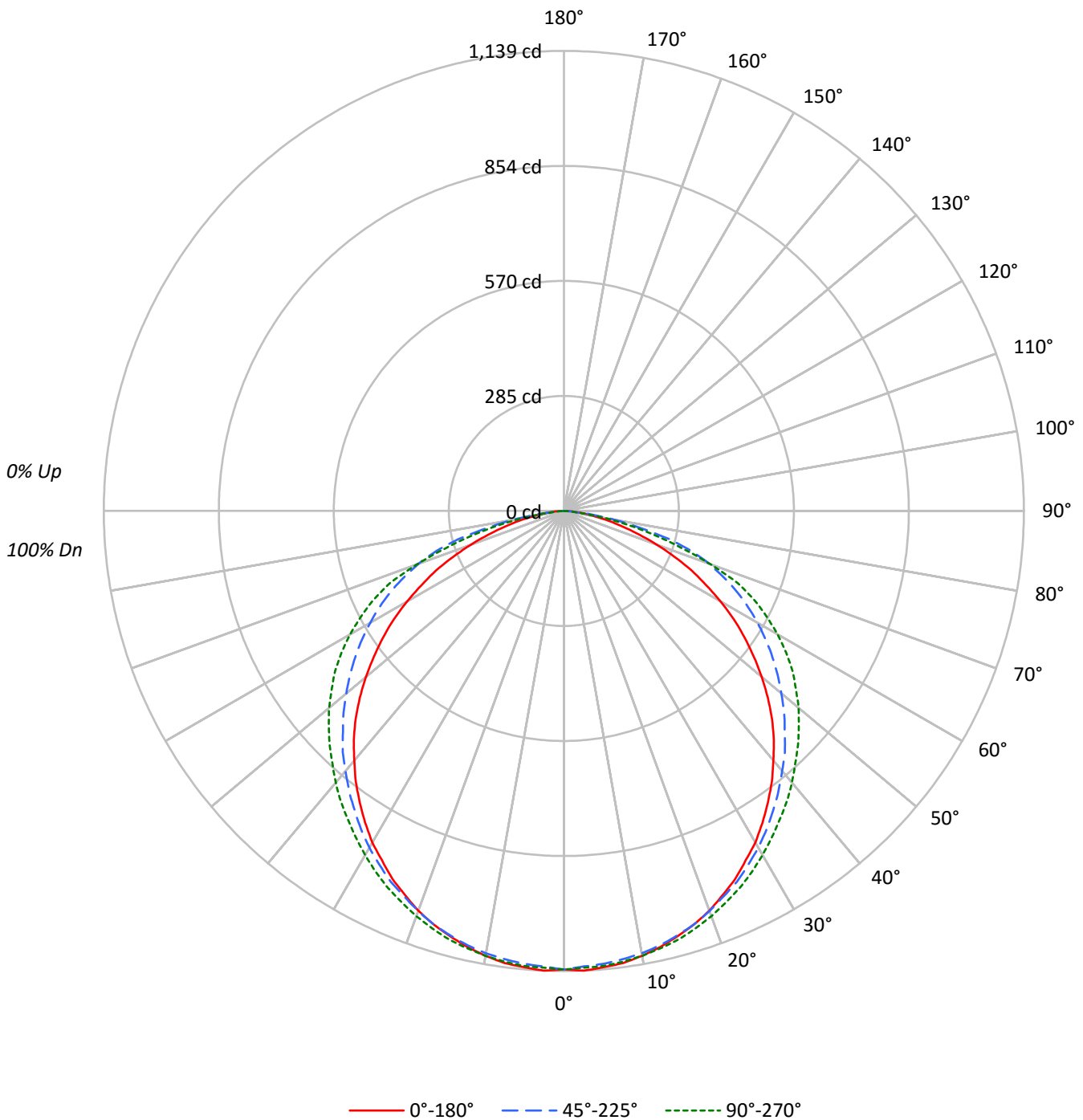
Lumens per Lamp: N/A
Luminaire Lumens: 3342.0 lumens
Efficiency: N/A
Efficacy: 83.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 40.2
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



TEST NUMBER: P311968
CATALOG NUMBER: 14FCZ2-44-UNV-L83050-HRP-CA08-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P311968

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-HRP-CA08-W2A-U-4500K

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°	3054	3054	3054
5°	3063	3040	3055
10°	3055	3038	3055
15°	3036	3030	3059
20°	3015	3018	3058
25°	2983	3008	3058
30°	2945	2991	3056
35°	2893	2969	3062
40°	2835	2953	3086
45°	2775	2944	3119
50°	2679	2943	3176
55°	2564	2958	3244
60°	2410	2981	3286
65°	2222	3011	3305
70°	1935	3018	3043
75°	1595	2808	2459
80°	1254	2019	1644
85°	973	778	389



TEST NUMBER: P311968

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-HRP-CA08-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.5	3.2
10°-20°	308.3	9.2
20°-30°	468.2	14.0
30°-40°	567.3	17.0
40°-50°	597.8	17.9
50°-60°	558.1	16.7
60°-70°	446.0	13.3
70°-80°	245.4	7.3
80°-90°	43.3	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°	884.0	26.5
0°-40°	1451.3	43.4
0°-60°	2607.2	78.0
0°-90°	3342.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3342.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1135	1135	1135	1135	1135	
5°	1134	1131	1126	1133	1131	108
15°	1090	1090	1088	1098	1098	308
25°	1005	1007	1013	1028	1030	462
35°	881	889	904	927	932	551
45°	729	743	774	808	820	561
55°	546	574	630	675	692	488
65°	349	393	473	512	519	343
75°	153	220	270	243	236	165
85°	32	40	25	16	13	38
90°	0	0	0	0	0	



TEST NUMBER: P311968

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-HRP-CA08-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1135.0	1135.0	1135.0	1135.0	1135.0
2.5°	1139.2	1136.0	1128.7	1135.0	1131.8
5°	1133.9	1130.8	1125.5	1132.9	1130.8
7.5°	1128.7	1124.5	1119.2	1127.6	1125.5
10°	1118.1	1115.0	1111.8	1119.2	1118.1
12.5°	1105.5	1104.5	1101.3	1109.7	1108.7
15°	1089.8	1089.8	1087.7	1098.2	1098.2
17.5°	1073.0	1071.9	1073.0	1084.5	1083.5
20°	1053.0	1053.0	1054.0	1067.7	1067.7
22.5°	1028.8	1029.9	1033.0	1049.8	1048.8
25°	1004.6	1006.8	1013.1	1027.8	1029.9
27.5°	975.2	980.5	987.8	1005.7	1007.8
30°	947.9	951.1	962.6	979.4	983.6
32.5°	915.3	921.6	934.2	953.2	958.4
35°	880.6	889.1	903.8	926.9	932.1
37.5°	846.0	853.3	873.3	897.5	906.9
40°	807.1	819.7	840.7	868.0	878.5
42.5°	769.3	781.9	810.2	838.6	848.1
45°	729.3	743.0	773.5	808.1	819.7
47.5°	685.2	700.9	739.8	776.6	789.2
50°	640.0	660.0	703.0	744.0	758.7
52.5°	592.7	617.9	667.3	710.4	724.1
55°	546.5	573.8	630.5	674.7	691.5
57.5°	499.2	528.6	592.7	643.1	652.6
60°	447.7	483.4	553.8	598.0	610.6
62.5°	397.2	438.2	513.9	555.9	566.4
65°	348.9	393.0	472.9	511.8	519.1
67.5°	296.4	348.9	427.7	463.4	465.5
70°	245.9	306.9	383.6	400.4	386.7
72.5°	196.5	261.7	332.1	318.4	306.9
75°	153.4	219.6	270.1	242.8	236.5
77.5°	113.5	179.7	193.4	178.7	167.1
80°	80.9	141.9	130.3	111.4	106.1
82.5°	55.7	89.3	71.5	55.7	48.3
85°	31.5	39.9	25.2	15.8	12.6
87.5°	13.7	9.5	5.3	4.2	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)