

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: P311973

Luminaire Tested: **14FCZ2-44-UNV-L83050-HRP-CA125-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: P311973
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-CA125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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: 3330.0 lumens
Efficiency: N/A
Efficacy: 82.8 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

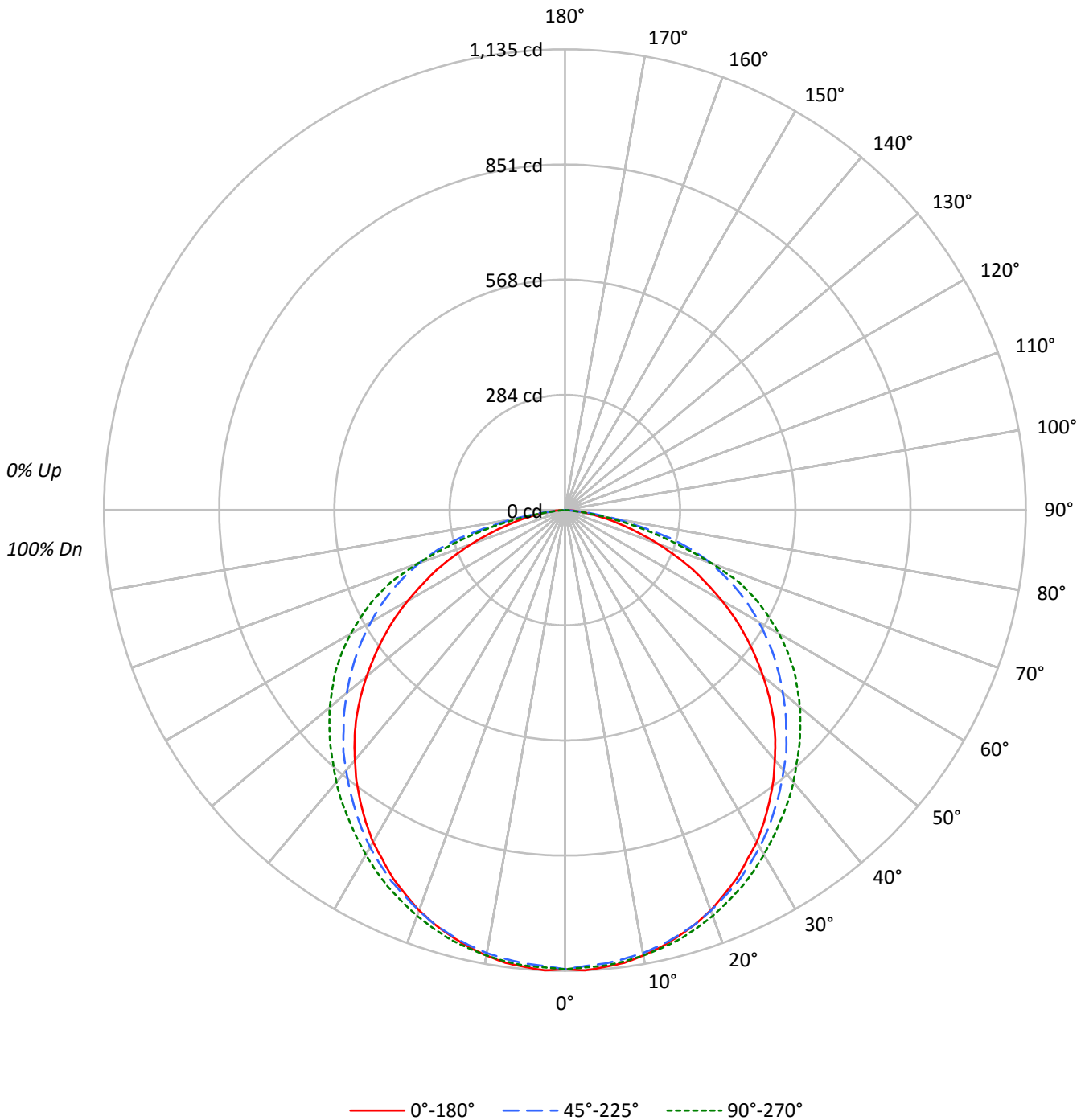
Input Watts (W): 40.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3043	3043	3043
5°	3052	3029	3044
10°	3044	3027	3044
15°	3025	3019	3048
20°	3005	3008	3047
25°	2972	2997	3047
30°	2935	2980	3045
35°	2883	2958	3051
40°	2825	2943	3075
45°	2766	2933	3108
50°	2670	2933	3165
55°	2555	2948	3232
60°	2401	2970	3274
65°	2213	3000	3294
70°	1928	3007	3032
75°	1590	2798	2450
80°	1249	2011	1640
85°	969	775	389



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.1	3.2
10°-20°	307.2	9.2
20°-30°	466.5	14.0
30°-40°	565.3	17.0
40°-50°	595.7	17.9
50°-60°	556.1	16.7
60°-70°	444.4	13.3
70°-80°	244.5	7.3
80°-90°	43.2	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°	880.8	26.5
0°-40°	1446.1	43.4
0°-60°	2597.9	78.0
0°-90°	3330.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3330.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1131	1131	1131	1131	1131	
5°	1130	1127	1122	1129	1127	107
15°	1086	1086	1084	1094	1094	307
25°	1001	1003	1009	1024	1026	461
35°	878	886	900	924	929	549
45°	727	740	771	805	817	559
55°	544	572	628	672	689	486
65°	348	392	471	510	517	342
75°	153	219	269	242	236	165
85°	31	40	25	16	13	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1130.9	1130.9	1130.9	1130.9	1130.9
2.5°	1135.1	1131.9	1124.6	1130.9	1127.7
5°	1129.8	1126.7	1121.5	1128.8	1126.7
7.5°	1124.6	1120.4	1115.2	1123.6	1121.5
10°	1114.1	1111.0	1107.8	1115.2	1114.1
12.5°	1101.6	1100.5	1097.4	1105.8	1104.7
15°	1085.9	1085.9	1083.8	1094.2	1094.2
17.5°	1069.1	1068.1	1069.1	1080.6	1079.6
20°	1049.2	1049.2	1050.3	1063.9	1063.9
22.5°	1025.1	1026.2	1029.3	1046.1	1045.0
25°	1001.0	1003.1	1009.4	1024.1	1026.2
27.5°	971.7	977.0	984.3	1002.1	1004.2
30°	944.5	947.6	959.2	975.9	980.1
32.5°	912.0	918.3	930.9	949.7	955.0
35°	877.5	885.9	900.5	923.6	928.8
37.5°	842.9	850.3	870.2	894.2	903.7
40°	804.2	816.8	837.7	864.9	875.4
42.5°	766.5	779.1	807.3	835.6	845.0
45°	726.7	740.3	770.7	805.2	816.8
47.5°	682.7	698.4	737.2	773.8	786.4
50°	637.7	657.6	700.5	741.4	756.0
52.5°	590.6	615.7	664.9	707.9	721.5
55°	544.5	571.7	628.3	672.2	689.0
57.5°	497.4	526.7	590.6	640.8	650.3
60°	446.1	481.7	551.8	595.8	608.4
62.5°	395.8	436.6	512.0	553.9	564.4
65°	347.6	391.6	471.2	509.9	517.3
67.5°	295.3	347.6	426.2	461.8	463.9
70°	245.0	305.8	382.2	399.0	385.3
72.5°	195.8	260.7	330.9	317.3	305.8
75°	152.9	218.8	269.1	241.9	235.6
77.5°	113.1	179.1	192.7	178.0	166.5
80°	80.6	141.4	129.8	111.0	105.8
82.5°	55.5	89.0	71.2	55.5	48.2
85°	31.4	39.8	25.1	15.7	12.6
87.5°	13.6	9.4	5.2	4.2	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)