

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: P307218

Luminaire Tested: **14FCZ2-44-UNV-L82765-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: P307218
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-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: 3191.0 lumens
Efficiency: N/A
Efficacy: 81.8 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

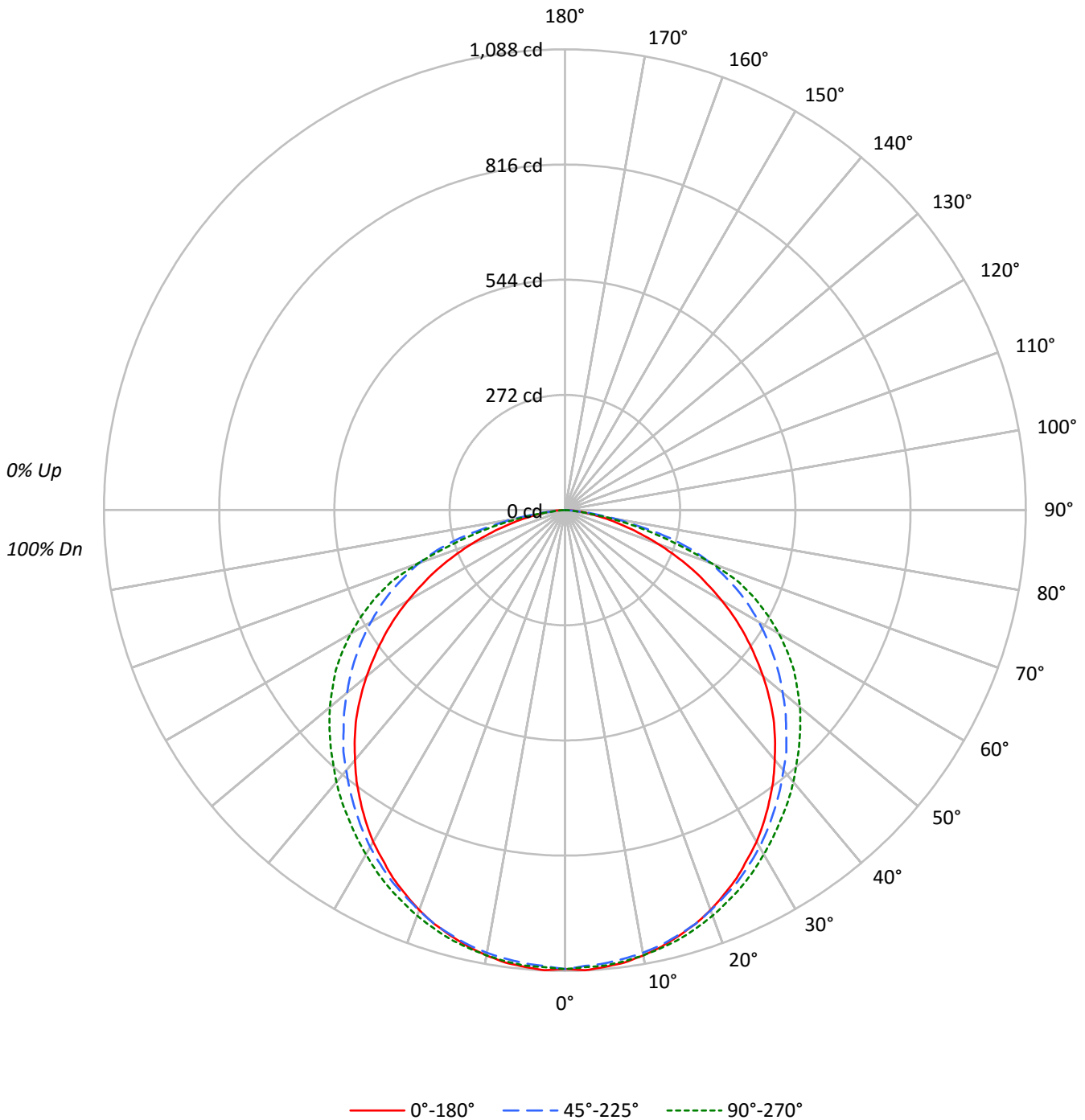
Input Watts (W): 39
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2916	2916	2916
5°	2925	2903	2917
10°	2917	2901	2917
15°	2899	2893	2921
20°	2879	2882	2920
25°	2848	2872	2920
30°	2812	2856	2918
35°	2762	2835	2924
40°	2707	2820	2947
45°	2650	2810	2979
50°	2558	2810	3033
55°	2448	2824	3097
60°	2301	2846	3138
65°	2121	2875	3156
70°	1847	2881	2906
75°	1523	2681	2348
80°	1198	1928	1570
85°	929	744	371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.6	3.2
10°-20°	294.4	9.2
20°-30°	447.1	14.0
30°-40°	541.7	17.0
40°-50°	570.8	17.9
50°-60°	532.9	16.7
60°-70°	425.9	13.3
70°-80°	234.3	7.3
80°-90°	41.4	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°	844.0	26.5
0°-40°	1385.7	43.4
0°-60°	2489.4	78.0
0°-90°	3191.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3191.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1084	1084	1084	1084	1084	
5°	1083	1080	1075	1082	1080	103
15°	1040	1040	1038	1049	1049	294
25°	959	961	967	981	983	442
35°	841	849	863	885	890	526
45°	696	709	738	772	783	536
55°	522	548	602	644	660	466
65°	333	375	452	489	496	328
75°	146	210	258	232	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°	1083.7	1083.7	1083.7	1083.7	1083.7
2.5°	1087.7	1084.7	1077.7	1083.7	1080.7
5°	1082.7	1079.7	1074.6	1081.7	1079.7
7.5°	1077.7	1073.6	1068.6	1076.7	1074.6
10°	1067.6	1064.6	1061.6	1068.6	1067.6
12.5°	1055.6	1054.6	1051.6	1059.6	1058.6
15°	1040.5	1040.5	1038.5	1048.6	1048.6
17.5°	1024.5	1023.5	1024.5	1035.5	1034.5
20°	1005.4	1005.4	1006.4	1019.5	1019.5
22.5°	982.3	983.3	986.3	1002.4	1001.4
25°	959.3	961.3	967.3	981.3	983.3
27.5°	931.2	936.2	943.2	960.3	962.3
30°	905.1	908.1	919.1	935.2	939.2
32.5°	874.0	880.0	892.0	910.1	915.1
35°	840.9	848.9	862.9	885.0	890.0
37.5°	807.7	814.8	833.8	856.9	865.9
40°	770.6	782.7	802.7	828.8	838.8
42.5°	734.5	746.5	773.6	800.7	809.7
45°	696.4	709.4	738.5	771.6	782.7
47.5°	654.2	669.3	706.4	741.5	753.6
50°	611.1	630.1	671.3	710.4	724.5
52.5°	565.9	590.0	637.2	678.3	691.3
55°	521.8	547.9	602.0	644.2	660.2
57.5°	476.6	504.7	565.9	614.1	623.1
60°	427.5	461.6	528.8	570.9	583.0
62.5°	379.3	418.4	490.7	530.8	540.8
65°	333.1	375.3	451.5	488.7	495.7
67.5°	283.0	333.1	408.4	442.5	444.5
70°	234.8	293.0	366.2	382.3	369.3
72.5°	187.6	249.8	317.1	304.0	293.0
75°	146.5	209.7	257.9	231.8	225.8
77.5°	108.4	171.6	184.6	170.6	159.5
80°	77.3	135.5	124.4	106.4	101.3
82.5°	53.2	85.3	68.2	53.2	46.2
85°	30.1	38.1	24.1	15.1	12.0
87.5°	13.0	9.0	5.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)