

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: P310191

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-RDP-CA125-W2A-U-5700K**

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: P310191
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-50HE-UNV-L82765-RDP-CA125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 5700K 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: 3211.0 lumens
Efficiency: N/A
Efficacy: 81.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

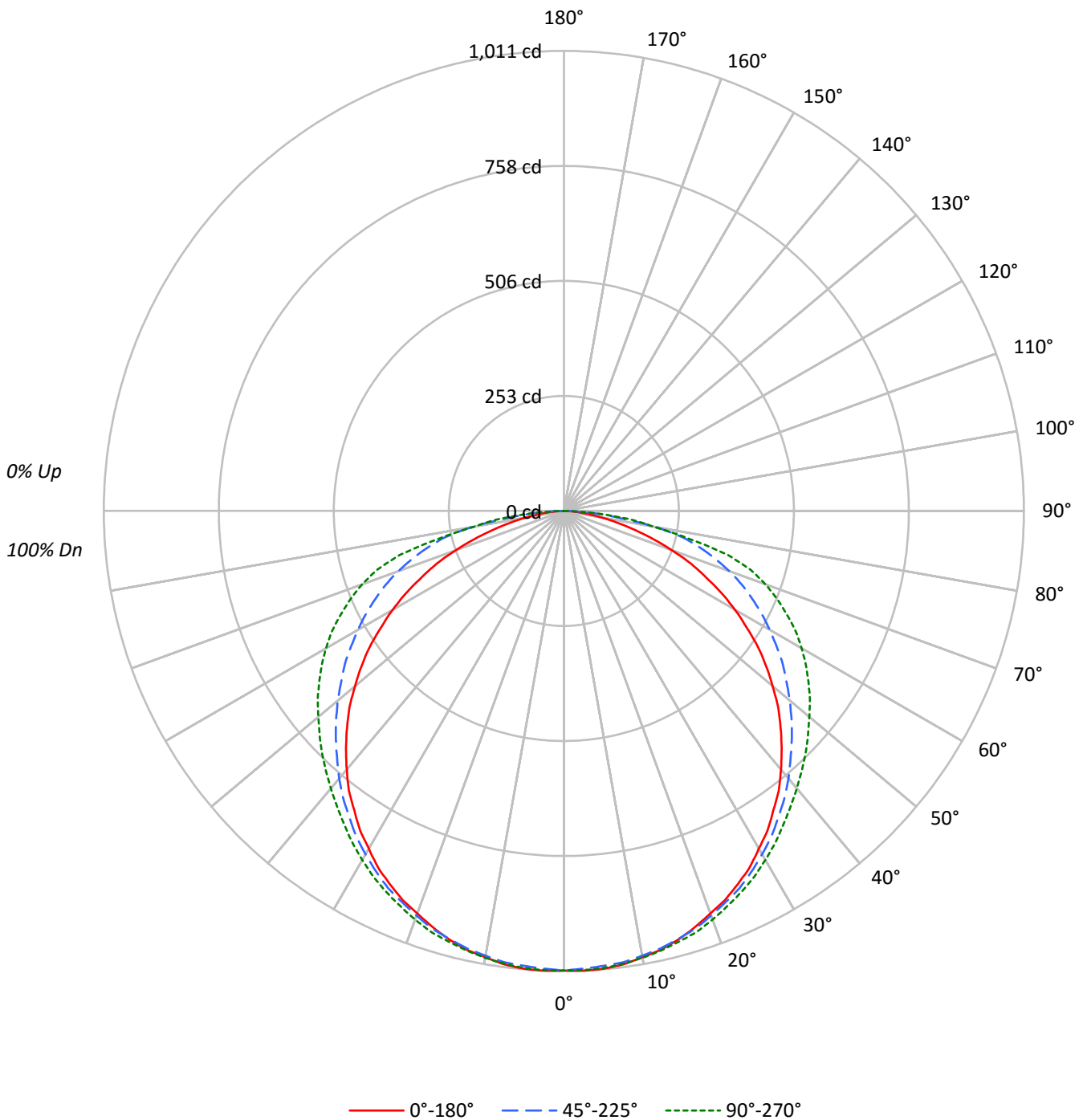
Input Watts (W): 39.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1359	1359	1359
5°	1364	1355	1362
10°	1360	1356	1362
15°	1358	1355	1364
20°	1348	1355	1368
25°	1343	1357	1371
30°	1331	1354	1376
35°	1318	1350	1381
40°	1304	1348	1399
45°	1282	1349	1431
50°	1254	1357	1474
55°	1222	1379	1539
60°	1170	1406	1624
65°	1095	1455	1724
70°	996	1522	1854
75°	845	1606	1938
80°	666	1616	1567
85°	492	1229	1377



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.8	3.0
10°-20°	275.7	8.6
20°-30°	421.6	13.1
30°-40°	515.3	16.0
40°-50°	549.3	17.1
50°-60°	525.2	16.4
60°-70°	444.9	13.9
70°-80°	299.0	9.3
80°-90°	84.3	2.6
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°	793.0	24.7
0°-40°	1308.4	40.7
0°-60°	2382.8	74.2
0°-90°	3211.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3211.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1010	1010	1010	1010	1010	
5°	1010	1008	1003	1008	1008	96
15°	975	975	973	981	980	275
25°	905	908	914	922	924	417
35°	803	809	822	838	841	503
45°	674	685	709	739	752	520
55°	521	540	588	634	656	464
65°	344	379	457	518	542	342
75°	162	221	309	362	373	174
85°	32	65	80	86	89	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1009.8	1009.8	1009.8	1009.8	1009.8
2.5°	1011.4	1011.4	1006.6	1009.8	1009.8
5°	1009.8	1008.2	1003.4	1008.2	1008.2
7.5°	1005.0	1003.4	1000.2	1005.0	1003.4
10°	995.4	995.4	992.2	997.0	997.0
12.5°	987.5	985.9	984.3	990.7	989.1
15°	974.7	974.7	973.1	981.1	979.5
17.5°	958.8	960.4	962.0	968.4	970.0
20°	941.3	944.5	946.1	955.6	955.6
22.5°	925.4	926.9	930.1	939.7	939.7
25°	904.7	907.8	914.2	922.2	923.8
27.5°	883.9	885.5	893.5	904.7	906.2
30°	856.9	861.6	871.2	883.9	885.5
32.5°	833.0	837.8	848.9	861.6	864.8
35°	802.7	809.1	821.8	837.8	840.9
37.5°	775.6	780.4	796.3	813.9	818.6
40°	742.2	751.8	767.7	788.4	796.3
42.5°	708.7	718.3	737.4	764.5	774.0
45°	673.7	684.9	708.7	739.0	751.8
47.5°	638.7	651.4	678.5	713.5	727.9
50°	598.9	614.8	648.2	688.0	704.0
52.5°	560.6	579.7	616.4	661.0	681.7
55°	520.8	539.9	587.7	633.9	656.2
57.5°	476.2	501.7	554.3	606.8	630.7
60°	434.8	458.7	522.4	579.7	603.6
62.5°	390.2	422.1	490.5	551.1	575.0
65°	344.0	379.1	457.1	517.6	541.5
67.5°	302.6	340.8	423.7	484.2	508.1
70°	253.2	301.0	387.0	447.5	471.4
72.5°	207.1	259.6	348.8	407.7	430.0
75°	162.5	221.4	309.0	361.5	372.7
77.5°	121.0	183.2	267.6	289.9	281.9
80°	86.0	146.5	208.6	197.5	202.3
82.5°	55.7	111.5	129.0	146.5	151.3
85°	31.9	65.3	79.6	86.0	89.2
87.5°	14.3	23.9	31.9	31.9	30.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)