

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: P310240

Luminaire Tested: **24FCZ2-50-UNV-L82765-RDP-CP125-W2A-U-3500K**

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: P310240
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: 24FCZ2-50-UNV-L82765-RDP-CP125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (168) 3500K 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: 2935.0 lumens
Efficiency: N/A
Efficacy: 68.4 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

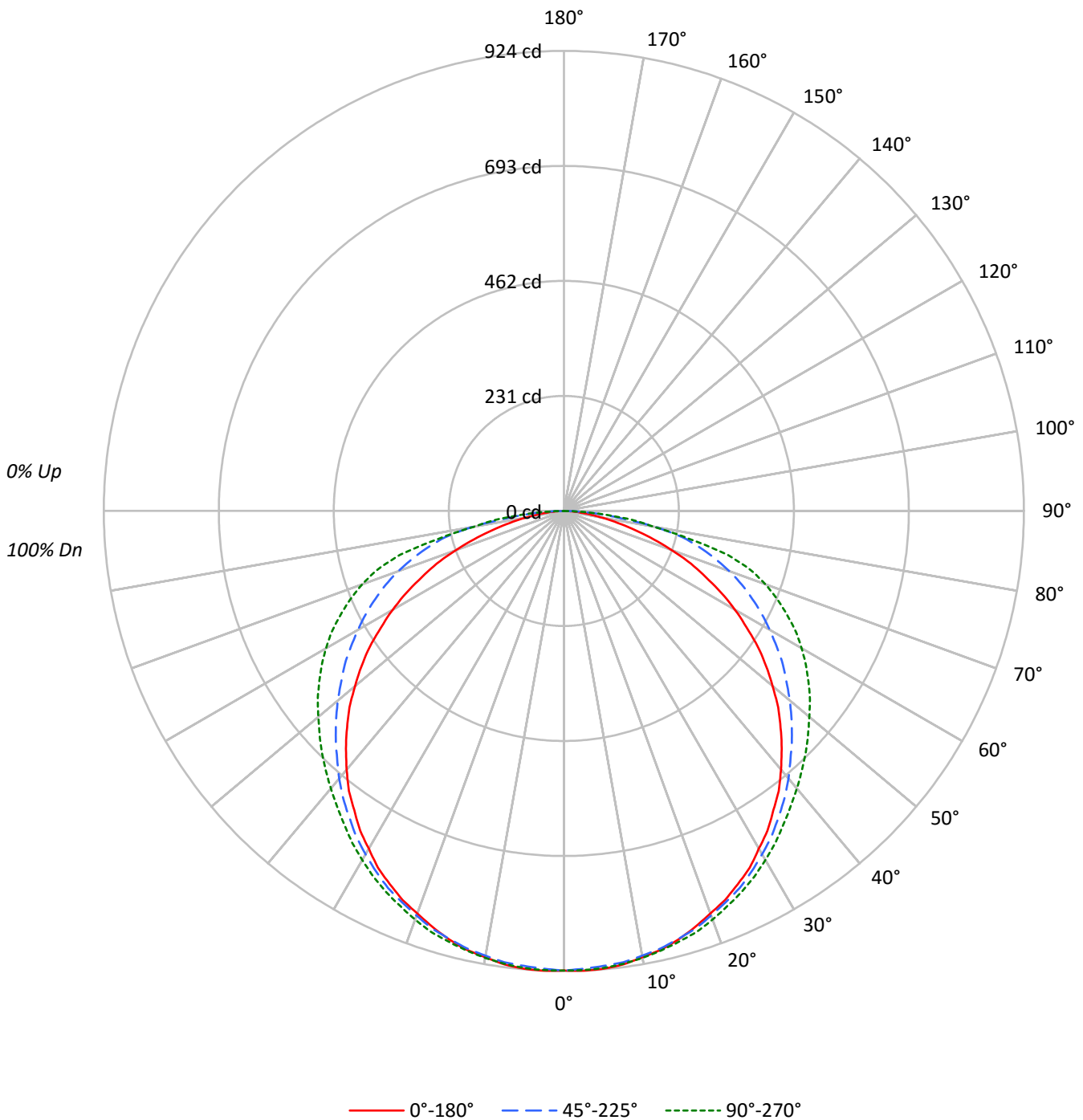
Input Watts (W): 42.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	1242	1242	1242
5°	1247	1239	1245
10°	1243	1239	1245
15°	1241	1239	1247
20°	1232	1238	1251
25°	1228	1241	1254
30°	1217	1237	1258
35°	1205	1234	1263
40°	1192	1232	1278
45°	1172	1233	1307
50°	1146	1240	1347
55°	1117	1260	1407
60°	1069	1285	1485
65°	1001	1330	1576
70°	911	1392	1695
75°	772	1468	1771
80°	609	1478	1433
85°	449	1124	1258



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.6	3.0
10°-20°	252.0	8.6
20°-30°	385.3	13.1
30°-40°	471.0	16.0
40°-50°	502.0	17.1
50°-60°	480.0	16.4
60°-70°	406.6	13.9
70°-80°	273.3	9.3
80°-90°	77.1	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°	724.9	24.7
0°-40°	1195.9	40.7
0°-60°	2178.0	74.2
0°-90°	2935.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2935.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	923	923	923	923	923	
5°	923	922	917	922	922	88
15°	891	891	890	897	895	251
25°	827	830	836	843	844	381
35°	734	740	751	766	769	460
45°	616	626	648	676	687	475
55°	476	494	537	579	600	424
65°	314	346	418	473	495	312
75°	148	202	282	330	341	159
85°	29	60	73	79	82	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	923.0	923.0	923.0	923.0	923.0
2.5°	924.4	924.4	920.1	923.0	923.0
5°	923.0	921.5	917.2	921.5	921.5
7.5°	918.6	917.2	914.2	918.6	917.2
10°	909.9	909.9	907.0	911.3	911.3
12.5°	902.6	901.1	899.7	905.5	904.0
15°	890.9	890.9	889.5	896.8	895.3
17.5°	876.4	877.8	879.3	885.1	886.6
20°	860.4	863.3	864.7	873.5	873.5
22.5°	845.8	847.3	850.2	858.9	858.9
25°	826.9	829.8	835.6	842.9	844.4
27.5°	808.0	809.4	816.7	826.9	828.3
30°	783.2	787.6	796.3	808.0	809.4
32.5°	761.4	765.7	775.9	787.6	790.5
35°	733.7	739.5	751.2	765.7	768.7
37.5°	709.0	713.3	727.9	743.9	748.3
40°	678.4	687.1	701.7	720.6	727.9
42.5°	647.8	656.6	674.0	698.8	707.5
45°	615.8	626.0	647.8	675.5	687.1
47.5°	583.8	595.4	620.2	652.2	665.3
50°	547.4	561.9	592.5	628.9	643.5
52.5°	512.4	529.9	563.4	604.2	623.1
55°	476.0	493.5	537.2	579.4	599.8
57.5°	435.3	458.6	506.6	554.7	576.5
60°	397.4	419.3	477.5	529.9	551.7
62.5°	356.7	385.8	448.4	503.7	525.5
65°	314.5	346.5	417.8	473.1	495.0
67.5°	276.6	311.5	387.2	442.6	464.4
70°	231.5	275.1	353.8	409.1	430.9
72.5°	189.3	237.3	318.8	372.7	393.1
75°	148.5	202.4	282.4	330.5	340.7
77.5°	110.6	167.4	244.6	265.0	257.7
80°	78.6	133.9	190.7	180.5	184.9
82.5°	51.0	101.9	117.9	133.9	138.3
85°	29.1	59.7	72.8	78.6	81.5
87.5°	13.1	21.8	29.1	29.1	27.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)