

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: P310187

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-RDP-CA125-W2A-U-4000K**

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: P310187
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-4000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (336) 4000K 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: 3074.0 lumens
Efficiency: N/A
Efficacy: 79.2 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

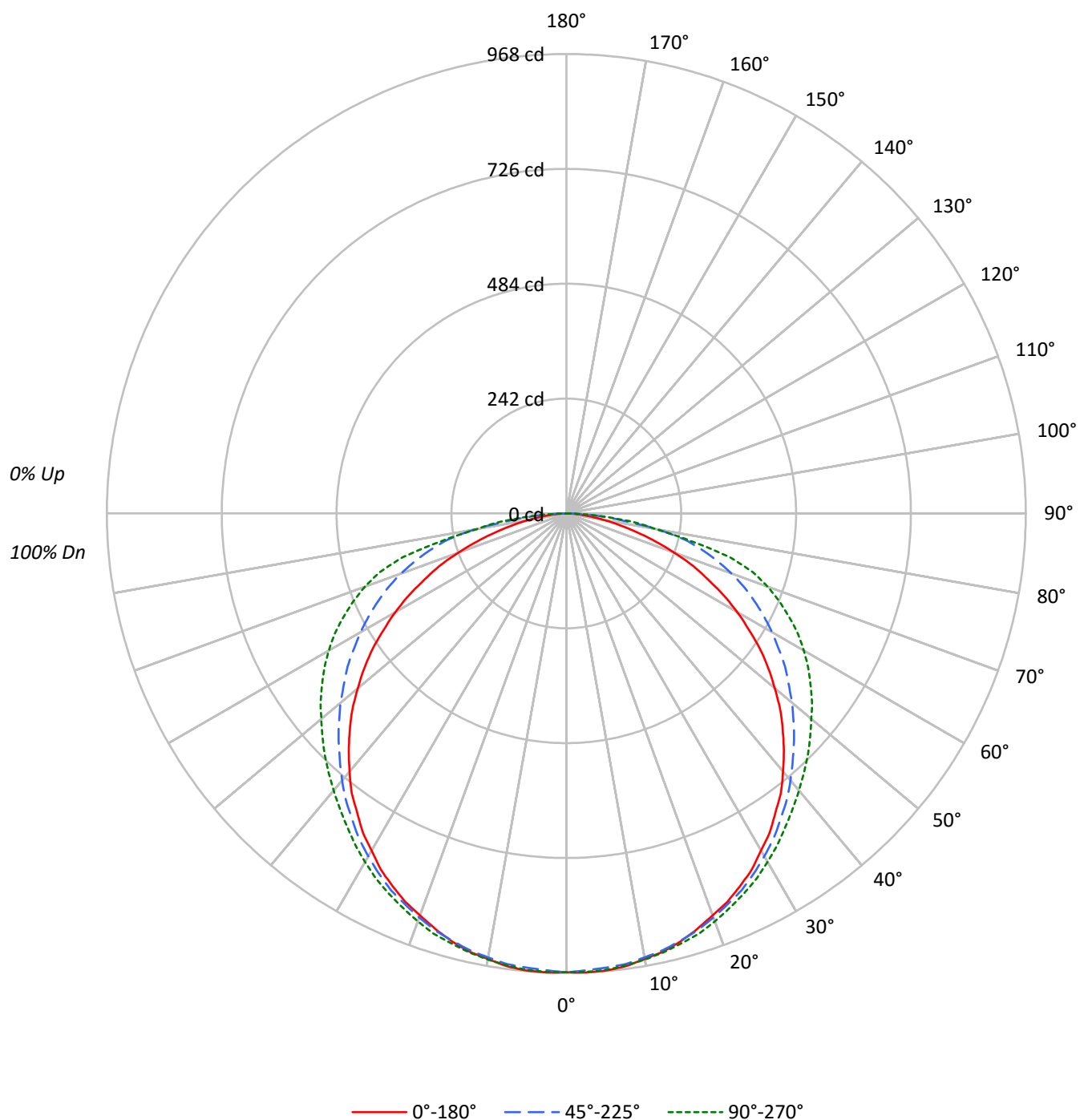
Input Watts (W): 38.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1301	1301	1301
5°	1306	1297	1304
10°	1302	1298	1304
15°	1300	1298	1306
20°	1290	1297	1310
25°	1286	1299	1313
30°	1274	1296	1317
35°	1262	1292	1322
40°	1248	1291	1339
45°	1227	1291	1369
50°	1200	1299	1411
55°	1170	1320	1474
60°	1120	1346	1555
65°	1048	1393	1650
70°	954	1458	1775
75°	808	1538	1855
80°	638	1547	1500
85°	471	1176	1318



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.7	3.0
10°-20°	263.9	8.6
20°-30°	403.6	13.1
30°-40°	493.4	16.0
40°-50°	525.8	17.1
50°-60°	502.8	16.4
60°-70°	425.9	13.9
70°-80°	286.2	9.3
80°-90°	80.7	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°	759.2	24.7
0°-40°	1252.5	40.7
0°-60°	2281.1	74.2
0°-90°	3074.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3074.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	967	967	967	967	967	
5°	967	965	961	965	965	92
15°	933	933	932	939	938	263
25°	866	869	875	883	884	399
35°	768	775	787	802	805	481
45°	645	656	678	708	720	497
55°	499	517	563	607	628	444
65°	329	363	438	496	518	327
75°	156	212	296	346	357	167
85°	30	62	76	82	85	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	966.7	966.7	966.7	966.7	966.7
2.5°	968.2	968.2	963.6	966.7	966.7
5°	966.7	965.2	960.6	965.2	965.2
7.5°	962.1	960.6	957.5	962.1	960.6
10°	953.0	953.0	949.9	954.5	954.5
12.5°	945.3	943.8	942.3	948.4	946.9
15°	933.1	933.1	931.6	939.2	937.7
17.5°	917.9	919.4	920.9	927.0	928.6
20°	901.1	904.2	905.7	914.8	914.8
22.5°	885.9	887.4	890.4	899.6	899.6
25°	866.1	869.1	875.2	882.8	884.3
27.5°	846.2	847.8	855.4	866.1	867.6
30°	820.3	824.9	834.0	846.2	847.8
32.5°	797.4	802.0	812.7	824.9	827.9
35°	768.5	774.6	786.8	802.0	805.1
37.5°	742.5	747.1	762.4	779.1	783.7
40°	710.5	719.7	734.9	754.7	762.4
42.5°	678.5	687.7	706.0	731.9	741.0
45°	645.0	655.6	678.5	707.5	719.7
47.5°	611.4	623.6	649.5	683.1	696.8
50°	573.3	588.5	620.6	658.7	673.9
52.5°	536.7	555.0	590.1	632.8	652.6
55°	498.6	516.9	562.6	606.8	628.2
57.5°	455.9	480.3	530.6	580.9	603.8
60°	416.3	439.1	500.1	555.0	577.9
62.5°	373.6	404.1	469.6	527.6	550.4
65°	329.3	362.9	437.6	495.5	518.4
67.5°	289.7	326.3	405.6	463.5	486.4
70°	242.4	288.2	370.5	428.5	451.3
72.5°	198.2	248.5	333.9	390.3	411.7
75°	155.5	211.9	295.8	346.1	356.8
77.5°	115.9	175.3	256.2	277.5	269.9
80°	82.3	140.3	199.7	189.1	193.6
82.5°	53.4	106.7	123.5	140.3	144.9
85°	30.5	62.5	76.2	82.3	85.4
87.5°	13.7	22.9	30.5	30.5	29.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)