

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: P310217

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-RDP-CP250-W2A-U-5500K**

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: P310217
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-CP250-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET
Light Source: (336) 5500K 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: 2982.0 lumens
Efficiency: N/A
Efficacy: 75.5 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

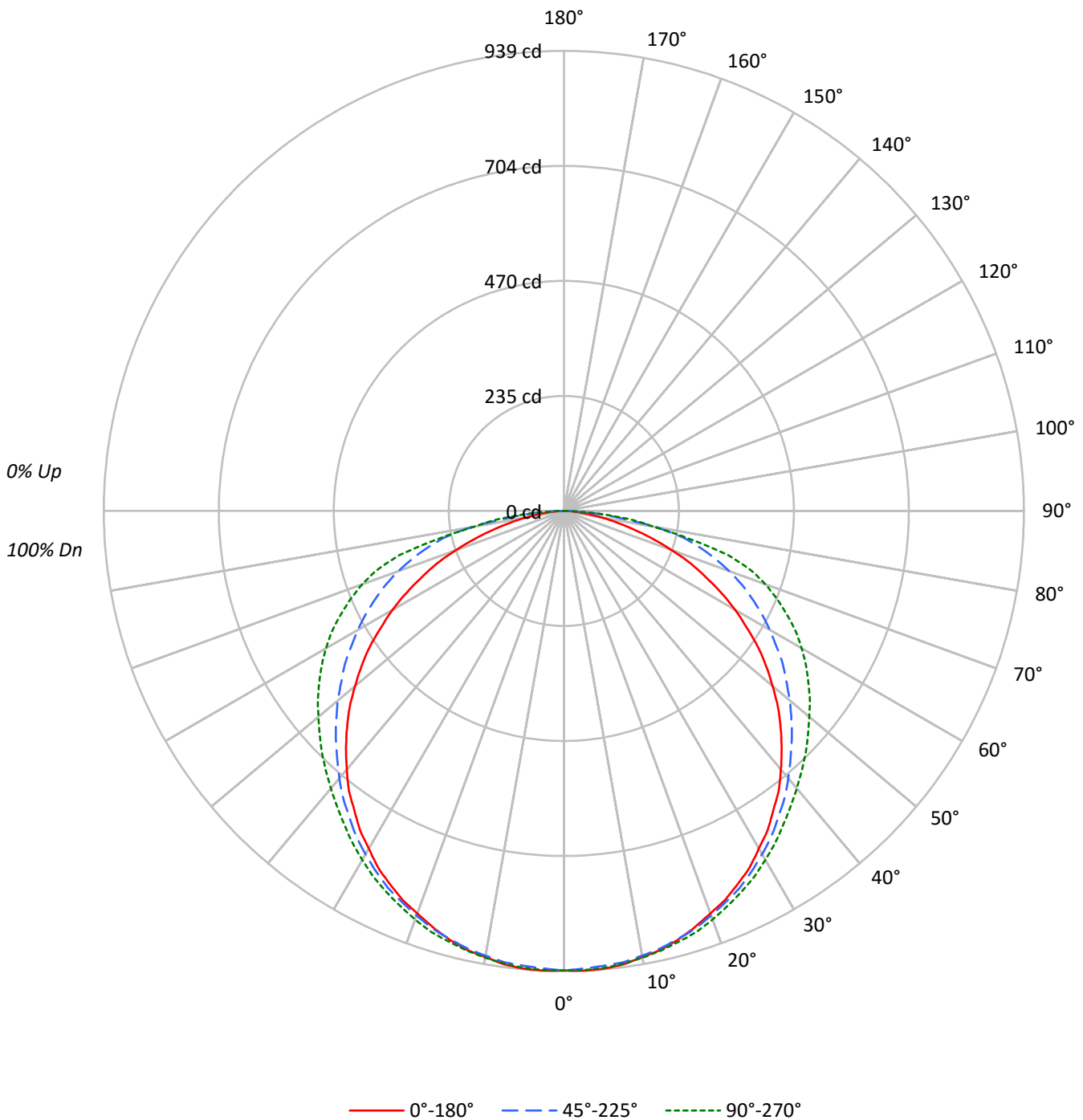
Input Watts (W): 39.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1262	1262	1262
5°	1267	1259	1265
10°	1263	1259	1265
15°	1261	1259	1267
20°	1252	1258	1271
25°	1247	1260	1274
30°	1236	1257	1278
35°	1225	1254	1283
40°	1211	1252	1299
45°	1191	1252	1328
50°	1164	1260	1369
55°	1135	1280	1430
60°	1087	1305	1509
65°	1017	1351	1601
70°	925	1414	1722
75°	784	1491	1799
80°	619	1502	1455
85°	457	1142	1278



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.0	3.0
10°-20°	256.0	8.6
20°-30°	391.5	13.1
30°-40°	478.6	16.0
40°-50°	510.1	17.1
50°-60°	487.7	16.4
60°-70°	413.1	13.9
70°-80°	277.7	9.3
80°-90°	78.3	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°	736.5	24.7
0°-40°	1215.1	40.7
0°-60°	2212.9	74.2
0°-90°	2982.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2982.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	938	938	938	938	938	
5°	938	936	932	936	936	89
15°	905	905	904	911	910	255
25°	840	843	849	856	858	387
35°	746	751	763	778	781	467
45°	626	636	658	686	698	483
55°	484	501	546	589	609	431
65°	320	352	424	481	503	317
75°	151	206	287	336	346	162
85°	30	61	74	80	83	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	937.8	937.8	937.8	937.8	937.8
2.5°	939.2	939.2	934.8	937.8	937.8
5°	937.8	936.3	931.8	936.3	936.3
7.5°	933.3	931.8	928.9	933.3	931.8
10°	924.4	924.4	921.5	925.9	925.9
12.5°	917.0	915.6	914.1	920.0	918.5
15°	905.2	905.2	903.7	911.1	909.7
17.5°	890.4	891.9	893.4	899.3	900.8
20°	874.2	877.1	878.6	887.5	887.5
22.5°	859.4	860.8	863.8	872.7	872.7
25°	840.1	843.1	849.0	856.4	857.9
27.5°	820.9	822.4	829.8	840.1	841.6
30°	795.8	800.2	809.1	820.9	822.4
32.5°	773.6	778.0	788.4	800.2	803.2
35°	745.5	751.4	763.2	778.0	781.0
37.5°	720.3	724.8	739.6	755.8	760.3
40°	689.3	698.1	712.9	732.2	739.6
42.5°	658.2	667.1	684.8	710.0	718.8
45°	625.7	636.0	658.2	686.3	698.1
47.5°	593.1	605.0	630.1	662.6	676.0
50°	556.1	570.9	602.0	639.0	653.8
52.5°	520.6	538.4	572.4	613.8	633.1
55°	483.7	501.4	545.8	588.7	609.4
57.5°	442.3	465.9	514.7	563.5	585.7
60°	403.8	426.0	485.1	538.4	560.6
62.5°	362.4	392.0	455.6	511.8	534.0
65°	319.5	352.0	424.5	480.7	502.9
67.5°	281.0	316.5	393.4	449.6	471.8
70°	235.2	279.6	359.4	415.6	437.8
72.5°	192.3	241.1	323.9	378.7	399.4
75°	150.9	205.6	286.9	335.8	346.1
77.5°	112.4	170.1	248.5	269.2	261.8
80°	79.9	136.1	193.8	183.4	187.8
82.5°	51.8	103.5	119.8	136.1	140.5
85°	29.6	60.6	74.0	79.9	82.8
87.5°	13.3	22.2	29.6	29.6	28.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)