

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: P310264

Luminaire Tested: **24FCZ2-50-UNV-L82765-RDP-CP250-W2A-U-6500K**

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: P310264
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-CP250-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET
Light Source: (168) 6500K 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: 2983.0 lumens
Efficiency: N/A
Efficacy: 66.9 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

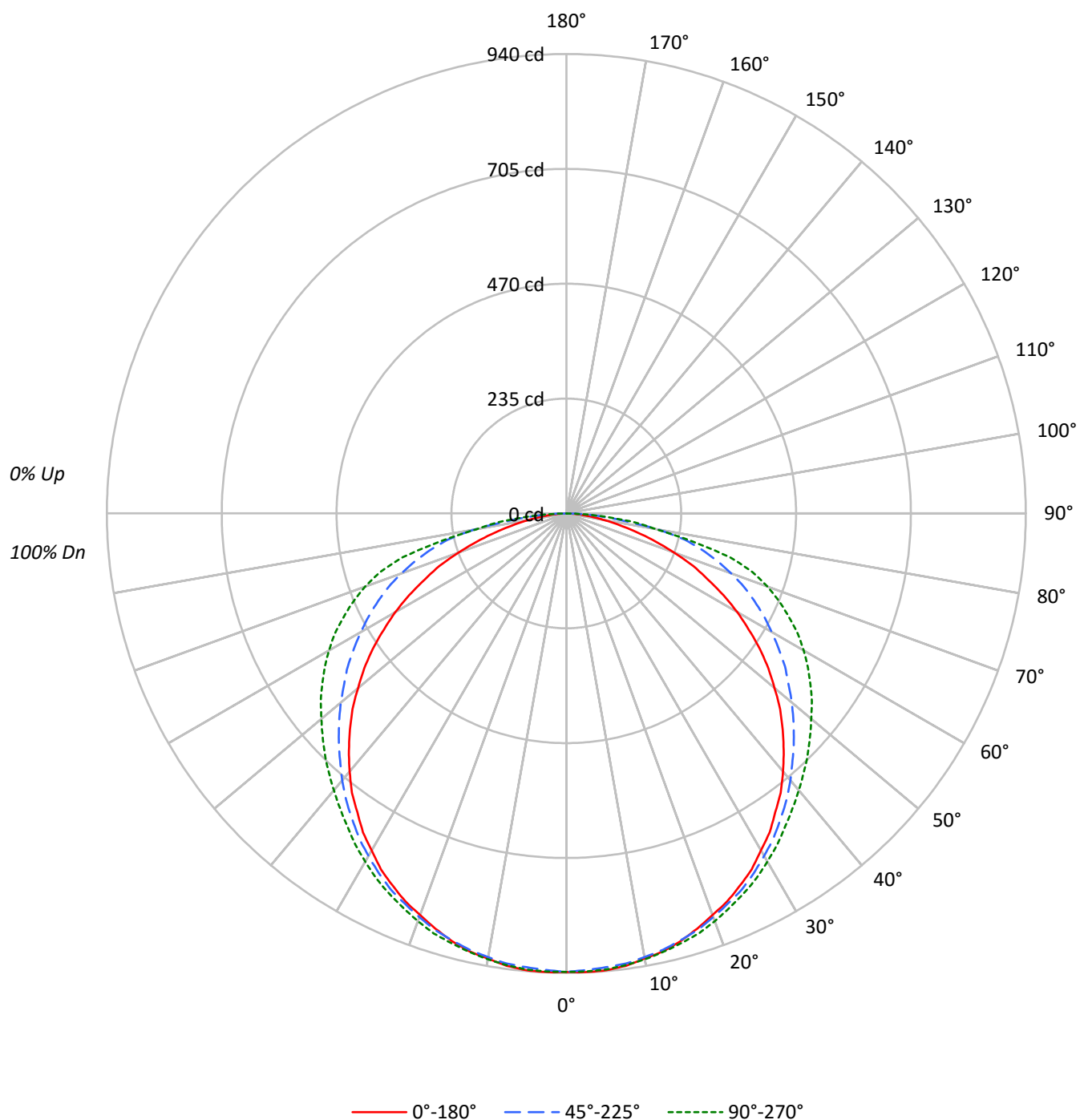
Input Watts (W): 44.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	1262	1262	1262
5°	1267	1259	1265
10°	1264	1259	1265
15°	1261	1259	1268
20°	1252	1258	1271
25°	1248	1261	1274
30°	1237	1257	1278
35°	1225	1254	1283
40°	1211	1253	1299
45°	1191	1253	1329
50°	1164	1261	1369
55°	1135	1281	1430
60°	1087	1306	1509
65°	1018	1352	1602
70°	926	1414	1723
75°	784	1492	1800
80°	619	1502	1456
85°	457	1142	1280



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.0	3.0
10°-20°	256.1	8.6
20°-30°	391.6	13.1
30°-40°	478.8	16.0
40°-50°	510.3	17.1
50°-60°	487.9	16.4
60°-70°	413.3	13.9
70°-80°	277.8	9.3
80°-90°	78.4	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°	736.7	24.7
0°-40°	1215.5	40.7
0°-60°	2213.6	74.2
0°-90°	2983.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2983.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	938	938	938	938	938	
5°	938	937	932	937	937	89
15°	906	906	904	911	910	255
25°	840	843	849	857	858	387
35°	746	752	764	778	781	467
45°	626	636	658	686	698	483
55°	484	502	546	589	610	431
65°	320	352	425	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°	938.1	938.1	938.1	938.1	938.1
2.5°	939.5	939.5	935.1	938.1	938.1
5°	938.1	936.6	932.1	936.6	936.6
7.5°	933.6	932.1	929.2	933.6	932.1
10°	924.8	924.8	921.8	926.2	926.2
12.5°	917.4	915.9	914.4	920.3	918.8
15°	905.5	905.5	904.0	911.4	910.0
17.5°	890.7	892.2	893.7	899.6	901.1
20°	874.4	877.4	878.9	887.8	887.8
22.5°	859.6	861.1	864.1	873.0	873.0
25°	840.4	843.4	849.3	856.7	858.2
27.5°	821.2	822.7	830.1	840.4	841.9
30°	796.0	800.5	809.3	821.2	822.7
32.5°	773.8	778.3	788.6	800.5	803.4
35°	745.7	751.6	763.5	778.3	781.2
37.5°	720.6	725.0	739.8	756.1	760.5
40°	689.5	698.4	713.2	732.4	739.8
42.5°	658.4	667.3	685.1	710.2	719.1
45°	625.9	636.2	658.4	686.5	698.4
47.5°	593.3	605.2	630.3	662.9	676.2
50°	556.3	571.1	602.2	639.2	654.0
52.5°	520.8	538.6	572.6	614.0	633.3
55°	483.8	501.6	546.0	588.9	609.6
57.5°	442.4	466.1	514.9	563.7	585.9
60°	403.9	426.1	485.3	538.6	560.8
62.5°	362.5	392.1	455.7	511.9	534.1
65°	319.6	352.1	424.6	480.9	503.1
67.5°	281.1	316.6	393.6	449.8	472.0
70°	235.3	279.6	359.5	415.8	438.0
72.5°	192.3	241.2	324.0	378.8	399.5
75°	150.9	205.7	287.0	335.9	346.2
77.5°	112.4	170.2	248.6	269.3	261.9
80°	79.9	136.1	193.8	183.5	187.9
82.5°	51.8	103.6	119.8	136.1	140.6
85°	29.6	60.7	74.0	79.9	82.9
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)