

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: P310262

Luminaire Tested: **24FCZ2-50-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: P310262
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-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET
Light Source: (168) 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: 2968.0 lumens
Efficiency: N/A
Efficacy: 67.6 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

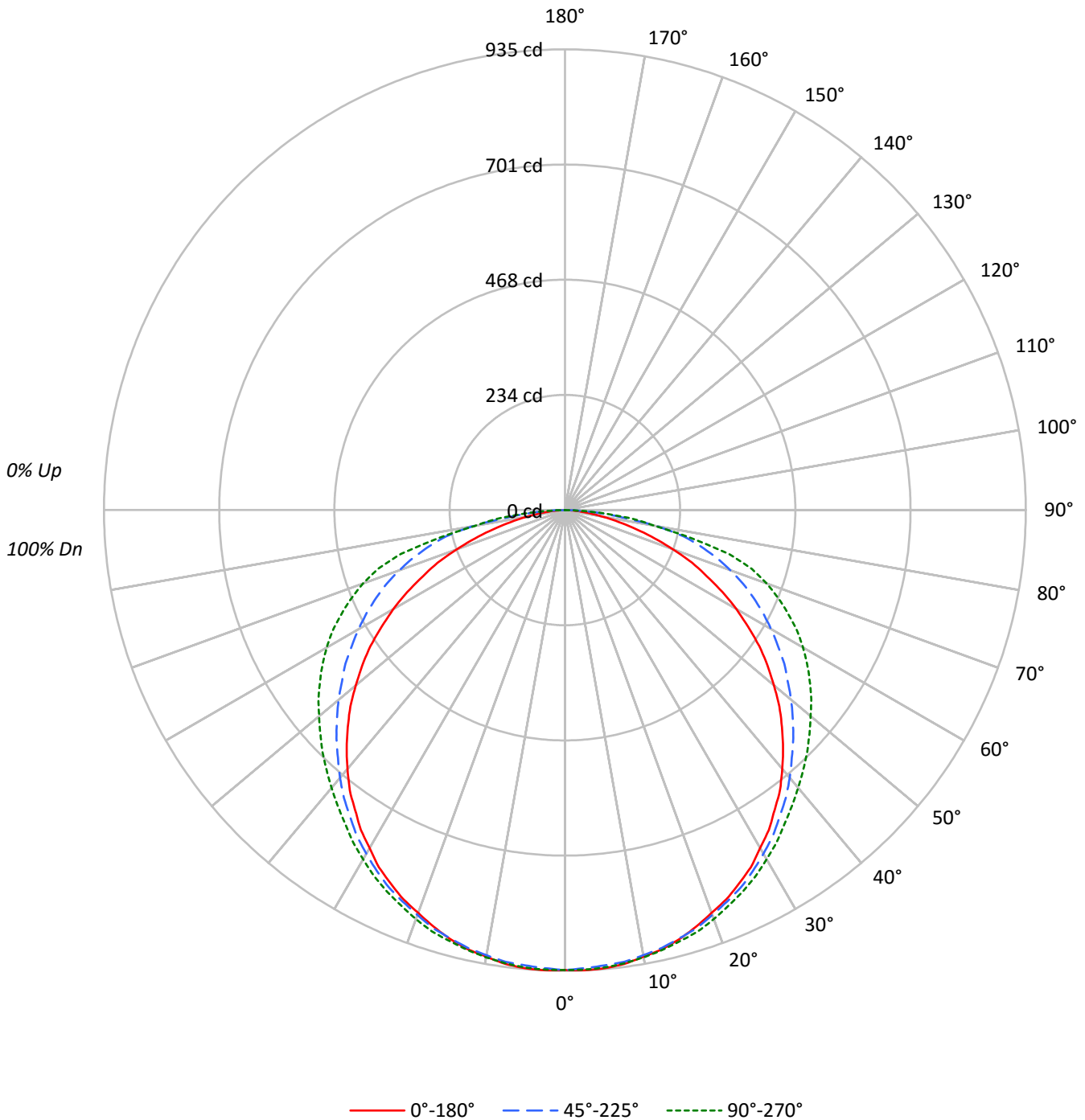
Input Watts (W): 43.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	68	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°	1256	1256	1256
5°	1261	1253	1259
10°	1257	1253	1259
15°	1255	1253	1261
20°	1246	1252	1265
25°	1241	1254	1268
30°	1230	1251	1272
35°	1219	1248	1277
40°	1205	1246	1293
45°	1185	1247	1322
50°	1159	1254	1362
55°	1129	1274	1423
60°	1082	1299	1501
65°	1012	1345	1593
70°	921	1407	1714
75°	781	1485	1791
80°	616	1495	1449
85°	454	1136	1272



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.5	3.0
10°-20°	254.8	8.6
20°-30°	389.7	13.1
30°-40°	476.4	16.0
40°-50°	507.7	17.1
50°-60°	485.4	16.4
60°-70°	411.2	13.9
70°-80°	276.4	9.3
80°-90°	77.9	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°	733.0	24.7
0°-40°	1209.4	40.7
0°-60°	2202.5	74.2
0°-90°	2968.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2968.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	933	933	933	933	933	
5°	933	932	928	932	932	89
15°	901	901	900	907	905	254
25°	836	839	845	852	854	385
35°	742	748	760	774	777	465
45°	623	633	655	683	695	480
55°	481	499	543	586	606	429
65°	318	350	422	478	500	316
75°	150	205	286	334	344	161
85°	29	60	74	80	82	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	933.4	933.4	933.4	933.4	933.4
2.5°	934.8	934.8	930.4	933.4	933.4
5°	933.4	931.9	927.5	931.9	931.9
7.5°	928.9	927.5	924.5	928.9	927.5
10°	920.1	920.1	917.2	921.6	921.6
12.5°	912.7	911.3	909.8	915.7	914.2
15°	901.0	901.0	899.5	906.9	905.4
17.5°	886.2	887.7	889.2	895.1	896.5
20°	870.0	873.0	874.5	883.3	883.3
22.5°	855.3	856.8	859.7	868.6	868.6
25°	836.2	839.1	845.0	852.4	853.9
27.5°	817.1	818.5	825.9	836.2	837.7
30°	792.0	796.4	805.3	817.1	818.5
32.5°	769.9	774.4	784.7	796.4	799.4
35°	742.0	747.9	759.6	774.4	777.3
37.5°	716.9	721.4	736.1	752.3	756.7
40°	686.0	694.9	709.6	728.7	736.1
42.5°	655.1	663.9	681.6	706.6	715.5
45°	622.7	633.0	655.1	683.1	694.9
47.5°	590.3	602.1	627.1	659.5	672.8
50°	553.5	568.3	599.2	636.0	650.7
52.5°	518.2	535.9	569.7	610.9	630.1
55°	481.4	499.1	543.2	585.9	606.5
57.5°	440.2	463.7	512.3	560.9	583.0
60°	401.9	424.0	482.9	535.9	557.9
62.5°	360.7	390.1	453.4	509.4	531.5
65°	318.0	350.4	422.5	478.5	500.5
67.5°	279.7	315.0	391.6	447.5	469.6
70°	234.1	278.2	357.7	413.7	435.8
72.5°	191.4	240.0	322.4	376.9	397.5
75°	150.2	204.6	285.6	334.2	344.5
77.5°	111.9	169.3	247.3	267.9	260.6
80°	79.5	135.4	192.9	182.5	187.0
82.5°	51.5	103.1	119.2	135.4	139.9
85°	29.4	60.4	73.6	79.5	82.4
87.5°	13.2	22.1	29.4	29.4	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)