

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: P309583

Luminaire Tested: **24FCZ2-50-UNV-L82765-HRP-CP250-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: P309583  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)  
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-HRP-CP250-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"  
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**

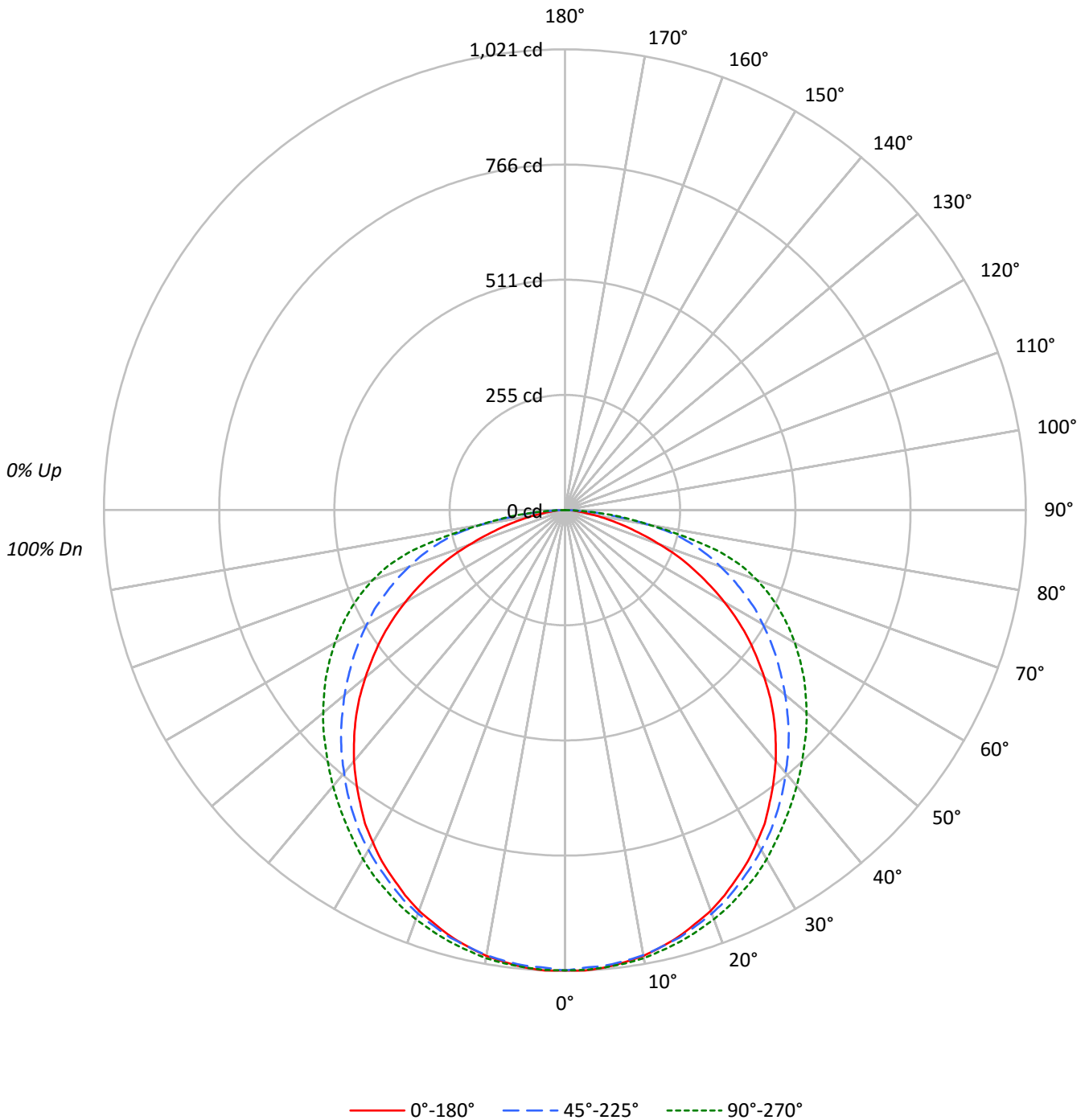
Lumens per Lamp: N/A  
Luminaire Lumens: 3144.0 lumens  
Efficiency: N/A  
Efficacy: 73.3 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 42.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1373	1373	1373
5°	1374	1369	1374
10°	1370	1368	1377
15°	1362	1366	1379
20°	1353	1363	1381
25°	1337	1356	1383
30°	1321	1352	1388
35°	1299	1345	1390
40°	1276	1336	1403
45°	1247	1335	1425
50°	1207	1334	1463
55°	1164	1343	1516
60°	1098	1364	1583
65°	1014	1395	1672
70°	886	1445	1781
75°	718	1519	1841
80°	530	1489	1489
85°	406	1098	1240



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.6	3.1
10°-20°	277.5	8.8
20°-30°	422.5	13.4
30°-40°	513.0	16.3
40°-50°	541.9	17.2
50°-60°	511.4	16.3
60°-70°	425.2	13.5
70°-80°	279.7	8.9
80°-90°	76.3	2.4
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°	796.6	25.3
0°-40°	1309.5	41.7
0°-60°	2362.8	75.2
0°-90°	3144.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3144.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1020	1020	1020	1020	1020	
5°	1017	1017	1014	1017	1017	97
15°	978	979	981	990	990	276
25°	900	906	914	929	932	415
35°	791	800	819	840	846	495
45°	656	669	702	736	749	505
55°	496	517	573	626	646	442
65°	318	355	438	503	525	315
75°	138	201	292	346	354	149
85°	26	58	71	79	80	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1020.1	1020.1	1020.1	1020.1	1020.1
2.5°	1021.4	1020.1	1014.8	1020.1	1020.1
5°	1017.4	1017.4	1013.5	1017.4	1017.4
7.5°	1010.9	1010.9	1008.2	1013.5	1013.5
10°	1003.0	1003.0	1001.6	1008.2	1008.2
12.5°	991.1	992.4	991.1	999.0	999.0
15°	978.0	979.3	980.6	989.8	989.8
17.5°	960.8	963.5	966.1	976.6	978.0
20°	945.0	946.4	951.6	963.5	964.8
22.5°	924.0	927.9	934.5	946.4	950.3
25°	900.3	905.6	913.5	929.3	931.9
27.5°	877.9	881.9	892.4	909.5	914.8
30°	850.3	856.9	870.0	887.1	893.7
32.5°	824.0	830.5	846.3	864.8	870.0
35°	791.1	800.3	818.7	839.8	846.3
37.5°	759.5	768.7	791.1	814.7	822.6
40°	726.6	737.1	760.8	788.4	798.9
42.5°	691.0	705.5	731.8	762.1	773.9
45°	655.5	668.6	701.5	735.8	748.9
47.5°	617.3	633.1	668.6	709.4	725.2
50°	576.5	596.2	637.1	681.8	698.9
52.5°	535.7	558.1	604.1	654.2	672.6
55°	496.2	517.3	572.6	626.5	646.3
57.5°	452.8	479.1	539.7	597.6	617.3
60°	408.0	437.0	506.7	567.3	588.4
62.5°	363.3	396.2	475.2	535.7	558.1
65°	318.5	355.4	438.3	502.8	525.2
67.5°	275.1	315.9	404.1	468.6	491.0
70°	225.1	276.4	367.2	430.4	452.8
72.5°	179.0	238.2	331.7	390.9	410.7
75°	138.2	201.4	292.2	346.2	354.1
77.5°	101.3	164.5	251.4	269.8	271.1
80°	68.4	131.6	192.2	189.5	192.2
82.5°	44.8	98.7	121.1	135.6	136.9
85°	26.3	57.9	71.1	79.0	80.3
87.5°	13.2	19.7	25.0	26.3	29.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)