

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: P310066

Luminaire Tested: **24FCZ2-40-UNV-L82765-RDP-CP125-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: P310066  
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: 24FCZ2-40-UNV-L82765-RDP-CP125-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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**

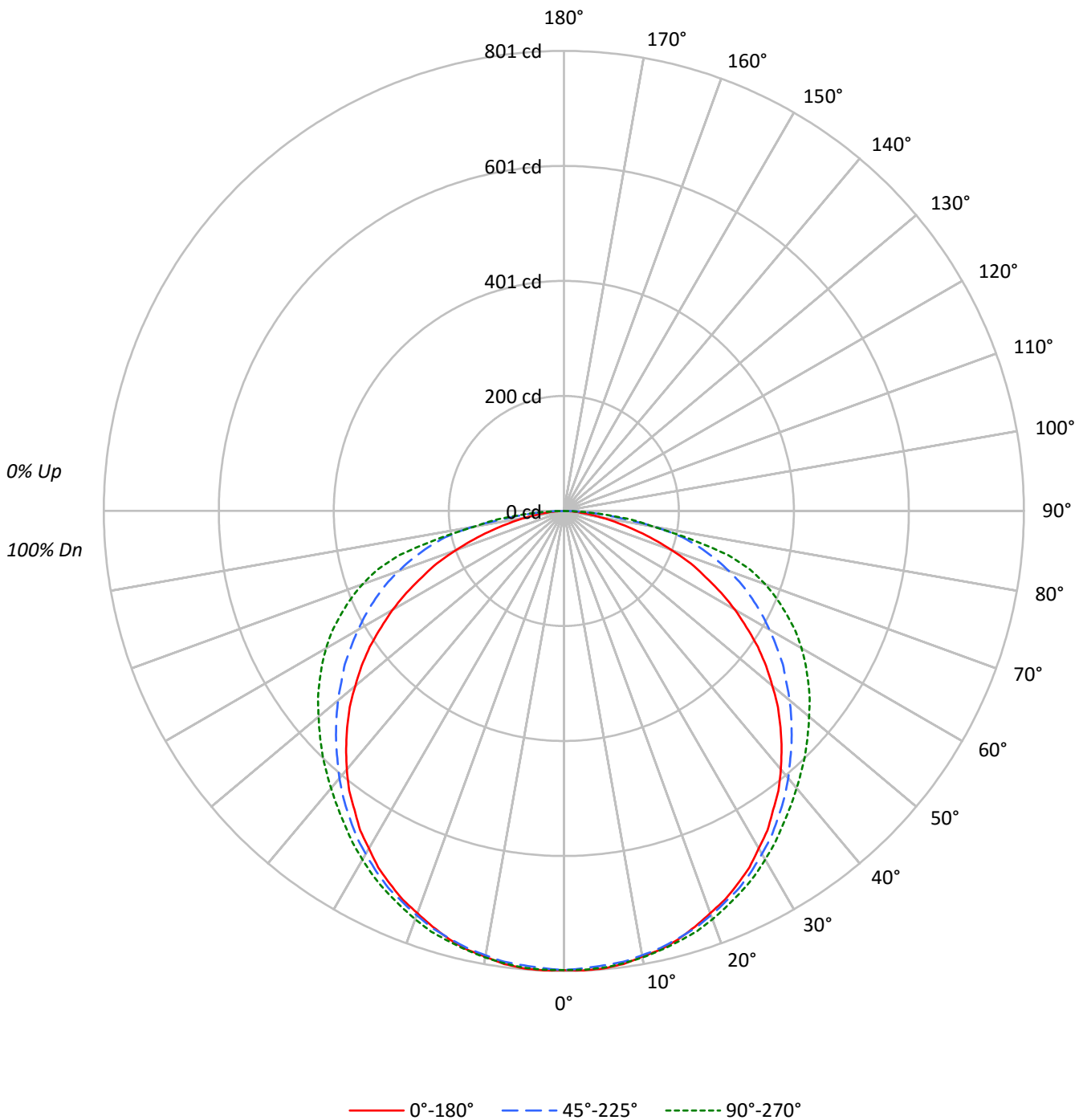
Lumens per Lamp: N/A  
Luminaire Lumens: 2542.0 lumens  
Efficiency: N/A  
Efficacy: 74.3 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.2  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	1076	1076	1076
5°	1080	1073	1078
10°	1077	1073	1078
15°	1075	1073	1080
20°	1067	1072	1083
25°	1063	1074	1086
30°	1054	1072	1089
35°	1044	1069	1093
40°	1032	1067	1107
45°	1015	1068	1132
50°	992	1074	1167
55°	967	1091	1219
60°	926	1113	1286
65°	867	1152	1365
70°	789	1205	1468
75°	669	1272	1534
80°	528	1280	1241
85°	389	973	1090



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.8	3.0
10°-20°	218.2	8.6
20°-30°	333.7	13.1
30°-40°	408.0	16.0
40°-50°	434.8	17.1
50°-60°	415.8	16.4
60°-70°	352.2	13.9
70°-80°	236.7	9.3
80°-90°	66.8	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°	627.8	24.7
0°-40°	1035.8	40.7
0°-60°	1886.3	74.2
0°-90°	2542.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2542.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	799	799	799	799	799	
5°	799	798	794	798	798	76
15°	772	772	770	777	775	218
25°	716	719	724	730	731	330
35°	636	640	651	663	666	398
45°	533	542	561	585	595	411
55°	412	427	465	502	520	367
65°	272	300	362	410	429	270
75°	129	175	245	286	295	138
85°	25	52	63	68	71	31
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	799.4	799.4	799.4	799.4	799.4
2.5°	800.6	800.6	796.9	799.4	799.4
5°	799.4	798.1	794.3	798.1	798.1
7.5°	795.6	794.3	791.8	795.6	794.3
10°	788.0	788.0	785.5	789.3	789.3
12.5°	781.7	780.5	779.2	784.3	783.0
15°	771.6	771.6	770.4	776.7	775.4
17.5°	759.0	760.3	761.6	766.6	767.9
20°	745.2	747.7	749.0	756.5	756.5
22.5°	732.6	733.8	736.3	743.9	743.9
25°	716.2	718.7	723.7	730.0	731.3
27.5°	699.8	701.0	707.3	716.2	717.4
30°	678.3	682.1	689.7	699.8	701.0
32.5°	659.4	663.2	672.0	682.1	684.6
35°	635.5	640.5	650.6	663.2	665.7
37.5°	614.0	617.8	630.4	644.3	648.1
40°	587.6	595.1	607.7	624.1	630.4
42.5°	561.1	568.6	583.8	605.2	612.8
45°	533.3	542.2	561.1	585.0	595.1
47.5°	505.6	515.7	537.1	564.9	576.2
50°	474.1	486.7	513.2	544.7	557.3
52.5°	443.8	459.0	488.0	523.3	539.6
55°	412.3	427.4	465.3	501.8	519.5
57.5°	377.0	397.2	438.8	480.4	499.3
60°	344.2	363.1	413.6	459.0	477.9
62.5°	308.9	334.1	388.3	436.3	455.2
65°	272.3	300.1	361.9	409.8	428.7
67.5°	239.6	269.8	335.4	383.3	402.2
70°	200.5	238.3	306.4	354.3	373.2
72.5°	163.9	205.5	276.1	322.8	340.4
75°	128.6	175.3	244.6	286.2	295.0
77.5°	95.8	145.0	211.8	229.5	223.2
80°	68.1	116.0	165.2	156.3	160.1
82.5°	44.1	88.3	102.1	116.0	119.8
85°	25.2	51.7	63.0	68.1	70.6
87.5°	11.3	18.9	25.2	25.2	24.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)