

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: P313651

Luminaire Tested: **24FCZ2-50-UNV-L83050-RDP-CP125-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: P313651
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-L83050-RDP-CP125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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: 3005.0 lumens
Efficiency: N/A
Efficacy: 70.4 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

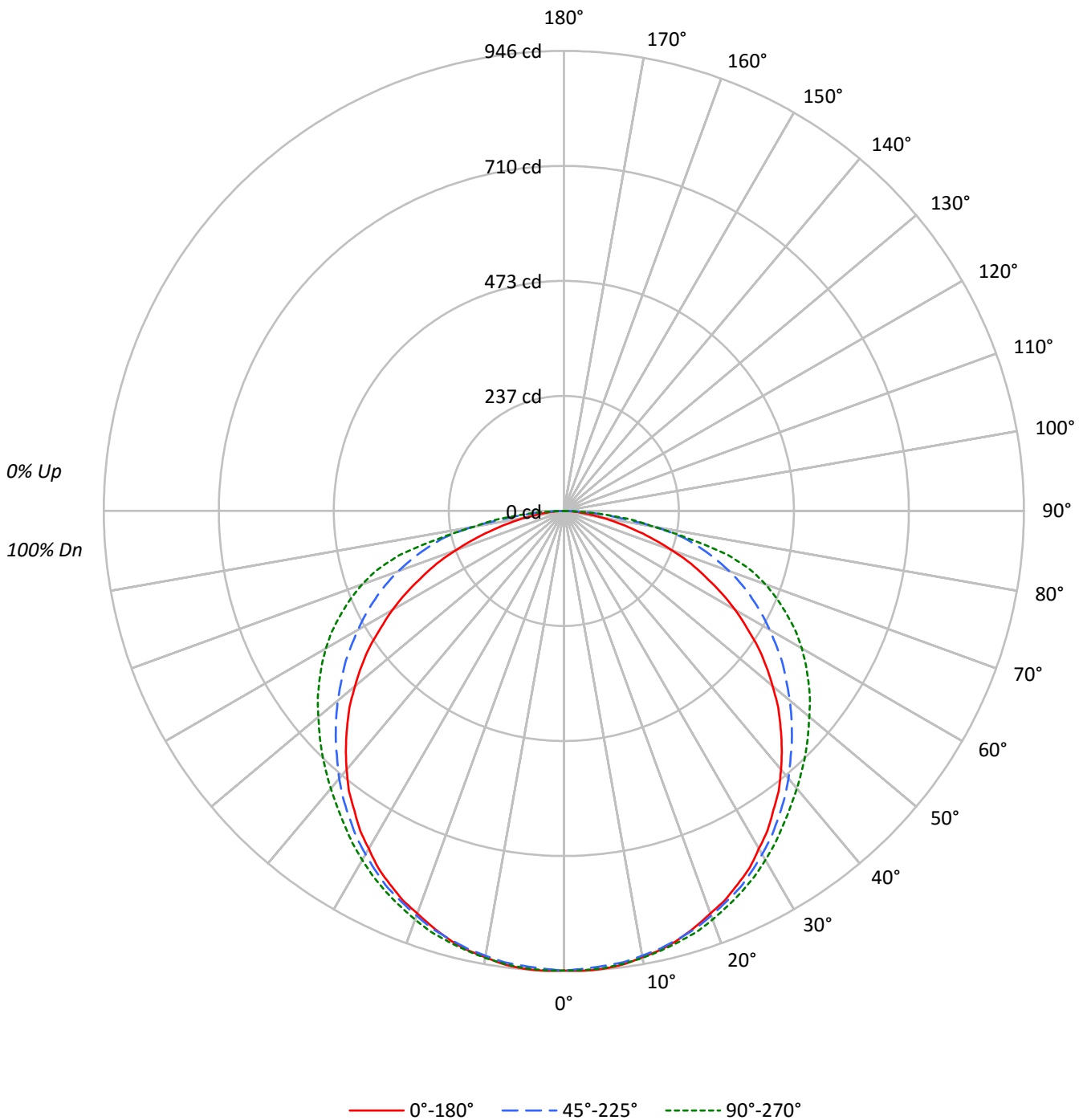
Input Watts (W): 42.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1271	1271	1271
5°	1276	1268	1274
10°	1273	1269	1275
15°	1271	1269	1277
20°	1261	1268	1280
25°	1257	1270	1283
30°	1246	1267	1287
35°	1234	1263	1293
40°	1220	1262	1309
45°	1200	1262	1339
50°	1173	1270	1379
55°	1143	1290	1441
60°	1095	1316	1520
65°	1025	1362	1613
70°	932	1425	1736
75°	790	1503	1813
80°	624	1513	1467
85°	460	1150	1289



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.6	3.0
10°-20°	258.0	8.6
20°-30°	394.5	13.1
30°-40°	482.3	16.0
40°-50°	514.0	17.1
50°-60°	491.5	16.4
60°-70°	416.3	13.9
70°-80°	279.8	9.3
80°-90°	78.9	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°	742.1	24.7
0°-40°	1224.4	40.7
0°-60°	2229.9	74.2
0°-90°	3005.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3005.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	945	945	945	945	945	
5°	945	944	939	944	944	90
15°	912	912	911	918	917	257
25°	847	850	856	863	864	390
35°	751	757	769	784	787	471
45°	630	641	663	692	704	486
55°	487	505	550	593	614	434
65°	322	355	428	484	507	320
75°	152	207	289	338	349	163
85°	30	61	74	80	84	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	945.0	945.0	945.0	945.0	945.0
2.5°	946.5	946.5	942.0	945.0	945.0
5°	945.0	943.5	939.0	943.5	943.5
7.5°	940.5	939.0	936.0	940.5	939.0
10°	931.6	931.6	928.6	933.1	933.1
12.5°	924.1	922.6	921.1	927.1	925.6
15°	912.2	912.2	910.7	918.2	916.7
17.5°	897.3	898.8	900.3	906.2	907.7
20°	880.9	883.9	885.4	894.3	894.3
22.5°	866.0	867.5	870.5	879.4	879.4
25°	846.6	849.6	855.6	863.0	864.5
27.5°	827.2	828.7	836.2	846.6	848.1
30°	801.9	806.4	815.3	827.2	828.7
32.5°	779.5	784.0	794.4	806.4	809.3
35°	751.2	757.2	769.1	784.0	787.0
37.5°	725.9	730.4	745.3	761.7	766.1
40°	694.6	703.5	718.4	737.8	745.3
42.5°	663.3	672.2	690.1	715.4	724.4
45°	630.5	640.9	663.3	691.6	703.5
47.5°	597.7	609.6	635.0	667.8	681.2
50°	560.4	575.3	606.6	643.9	658.8
52.5°	524.7	542.5	576.8	618.6	637.9
55°	487.4	505.3	550.0	593.2	614.1
57.5°	445.7	469.5	518.7	567.9	590.2
60°	406.9	429.3	488.9	542.5	564.9
62.5°	365.2	395.0	459.1	515.7	538.1
65°	322.0	354.7	427.8	484.4	506.8
67.5°	283.2	319.0	396.5	453.1	475.5
70°	237.0	281.7	362.2	418.8	441.2
72.5°	193.8	243.0	326.4	381.6	402.4
75°	152.0	207.2	289.2	338.3	348.8
77.5°	113.3	171.4	250.4	271.3	263.8
80°	80.5	137.1	195.3	184.8	189.3
82.5°	52.2	104.3	120.7	137.1	141.6
85°	29.8	61.1	74.5	80.5	83.5
87.5°	13.4	22.4	29.8	29.8	28.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)