

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: P309581

Luminaire Tested: **24FCZ2-50-UNV-L82765-HRP-CP250-W2A-U-2700K**

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: P309581
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-2700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 2700K 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: 2954.0 lumens
Efficiency: N/A
Efficacy: 69.2 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

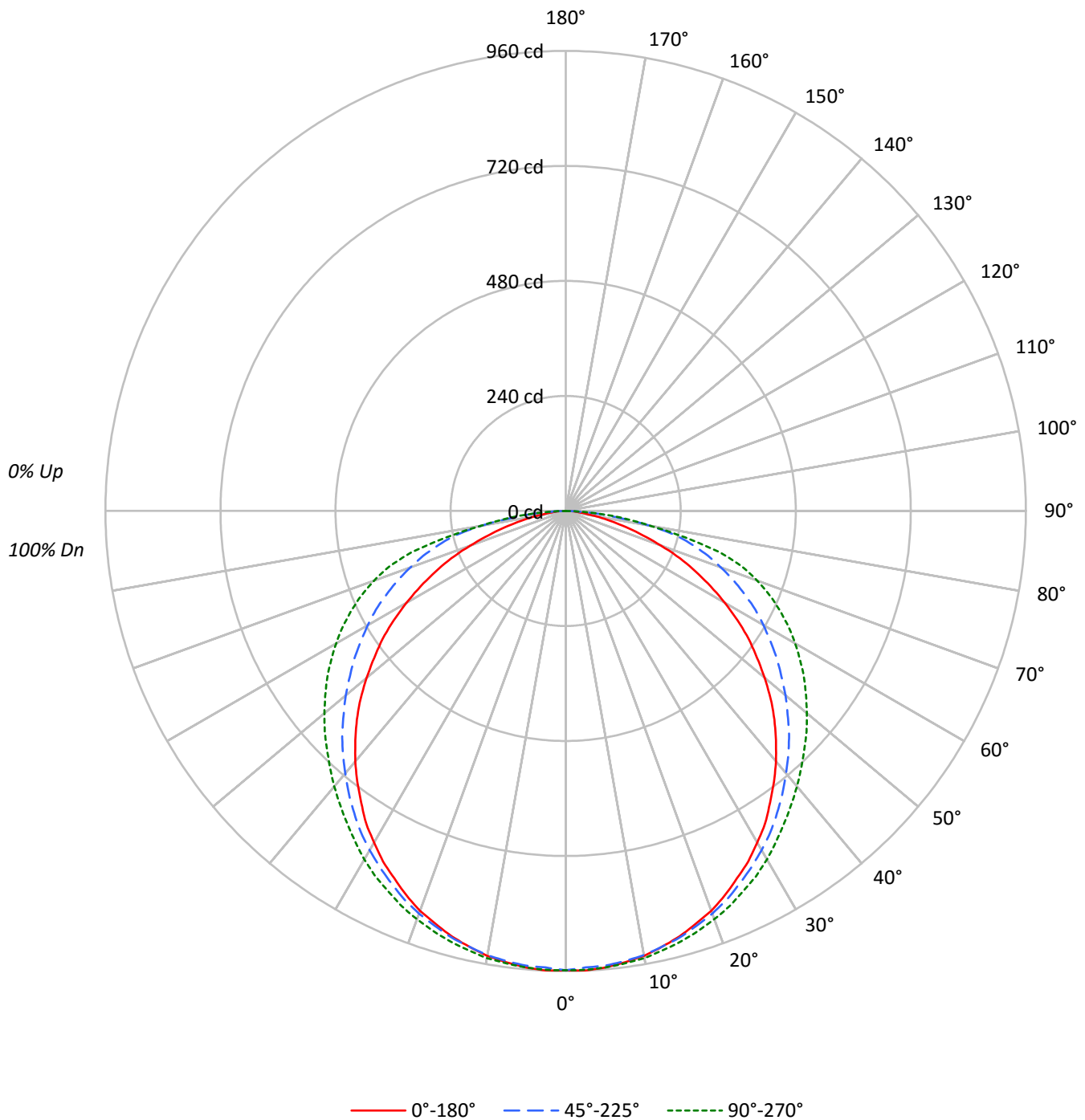
Input Watts (W): 42.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10
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°	1290	1290	1290
5°	1291	1286	1291
10°	1288	1286	1294
15°	1280	1283	1295
20°	1271	1280	1298
25°	1256	1274	1300
30°	1241	1270	1305
35°	1221	1263	1306
40°	1199	1255	1319
45°	1172	1254	1339
50°	1134	1253	1375
55°	1094	1262	1424
60°	1032	1281	1488
65°	953	1311	1571
70°	832	1357	1674
75°	675	1427	1730
80°	498	1399	1399
85°	381	1031	1164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.8	3.1
10°-20°	260.7	8.8
20°-30°	396.9	13.4
30°-40°	481.9	16.3
40°-50°	509.2	17.2
50°-60°	480.5	16.3
60°-70°	399.5	13.5
70°-80°	262.8	8.9
80°-90°	71.6	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°	748.4	25.3
0°-40°	1230.4	41.7
0°-60°	2220.0	75.2
0°-90°	2954.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2954.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	958	958	958	958	958	
5°	956	956	952	956	956	91
15°	919	920	921	930	930	259
25°	846	851	858	873	876	390
35°	743	752	769	789	795	465
45°	616	628	659	691	704	474
55°	466	486	538	589	607	415
65°	299	334	412	472	493	296
75°	130	189	274	325	333	140
85°	25	54	67	74	75	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	958.4	958.4	958.4	958.4	958.4
2.5°	959.7	958.4	953.5	958.4	958.4
5°	956.0	956.0	952.2	956.0	956.0
7.5°	949.8	949.8	947.3	952.2	952.2
10°	942.4	942.4	941.1	947.3	947.3
12.5°	931.2	932.5	931.2	938.6	938.6
15°	918.9	920.1	921.3	930.0	930.0
17.5°	902.8	905.3	907.7	917.6	918.9
20°	887.9	889.2	894.1	905.3	906.5
22.5°	868.1	871.9	878.0	889.2	892.9
25°	845.9	850.8	858.3	873.1	875.6
27.5°	824.9	828.6	838.5	854.5	859.5
30°	798.9	805.1	817.4	833.5	839.7
32.5°	774.2	780.3	795.2	812.5	817.4
35°	743.2	751.9	769.2	789.0	795.2
37.5°	713.6	722.2	743.2	765.5	772.9
40°	682.6	692.5	714.8	740.8	750.7
42.5°	649.3	662.9	687.6	716.0	727.2
45°	615.9	628.2	659.2	691.3	703.7
47.5°	580.0	594.8	628.2	666.6	681.4
50°	541.7	560.2	598.6	640.6	656.7
52.5°	503.3	524.4	567.6	614.6	631.9
55°	466.2	486.0	538.0	588.7	607.2
57.5°	425.4	450.2	507.0	561.5	580.0
60°	383.4	410.6	476.1	533.0	552.8
62.5°	341.3	372.2	446.4	503.3	524.4
65°	299.3	333.9	411.8	472.4	493.4
67.5°	258.5	296.8	379.7	440.3	461.3
70°	211.5	259.7	345.0	404.4	425.4
72.5°	168.2	223.8	311.6	367.3	385.8
75°	129.9	189.2	274.5	325.2	332.7
77.5°	95.2	154.6	236.2	253.5	254.8
80°	64.3	123.7	180.6	178.1	180.6
82.5°	42.0	92.8	113.8	127.4	128.6
85°	24.7	54.4	66.8	74.2	75.4
87.5°	12.4	18.6	23.5	24.7	27.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)