

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: P310263

Luminaire Tested: **24FCZ2-50-UNV-L82765-RDP-CP250-W2A-U-5700K**

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: P310263
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-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET
Light Source: (168) 5700K 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: 2976.0 lumens
Efficiency: N/A
Efficacy: 67.8 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

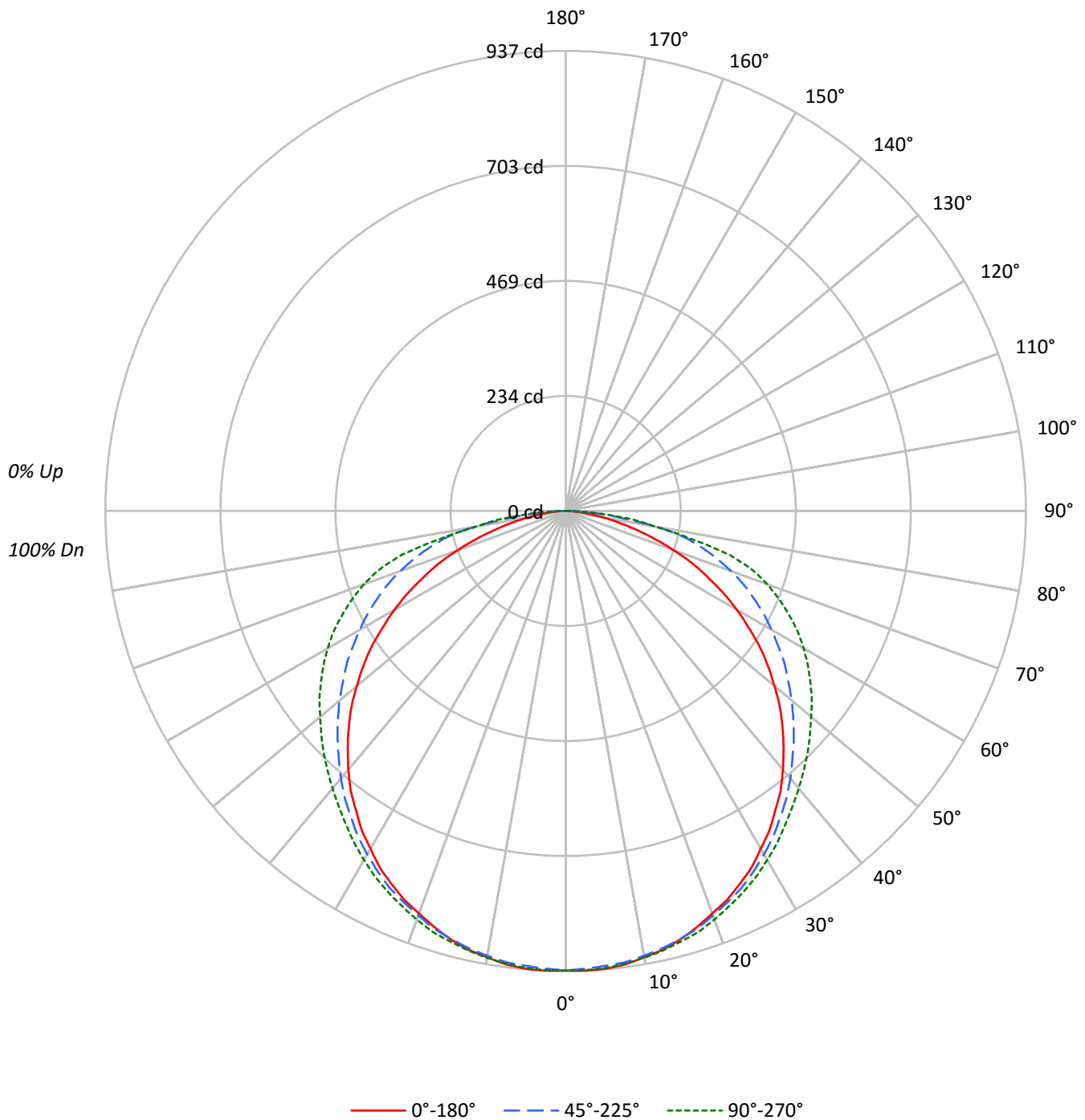
Input Watts (W): 43.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1259	1259	1259
5°	1264	1256	1262
10°	1260	1256	1263
15°	1258	1256	1265
20°	1249	1255	1268
25°	1245	1258	1271
30°	1234	1254	1275
35°	1222	1251	1280
40°	1208	1250	1296
45°	1188	1250	1326
50°	1162	1258	1366
55°	1132	1278	1427
60°	1084	1303	1506
65°	1015	1349	1598
70°	923	1411	1719
75°	783	1489	1796
80°	618	1499	1453
85°	455	1139	1277



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.8	3.0
10°-20°	255.5	8.6
20°-30°	390.7	13.1
30°-40°	477.6	16.0
40°-50°	509.0	17.1
50°-60°	486.7	16.4
60°-70°	412.3	13.9
70°-80°	277.1	9.3
80°-90°	78.2	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°	735.0	24.7
0°-40°	1212.6	40.7
0°-60°	2208.4	74.2
0°-90°	2976.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2976.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	936	936	936	936	936	
5°	936	934	930	934	934	89
15°	903	903	902	909	908	255
25°	838	841	847	855	856	386
35°	744	750	762	776	779	466
45°	624	635	657	685	697	482
55°	483	500	545	588	608	430
65°	319	351	424	480	502	317
75°	151	205	286	335	345	161
85°	30	60	74	80	83	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	935.9	935.9	935.9	935.9	935.9
2.5°	937.3	937.3	932.9	935.9	935.9
5°	935.9	934.4	930.0	934.4	934.4
7.5°	931.4	930.0	927.0	931.4	930.0
10°	922.6	922.6	919.6	924.1	924.1
12.5°	915.2	913.7	912.2	918.2	916.7
15°	903.4	903.4	901.9	909.3	907.8
17.5°	888.6	890.1	891.6	897.5	899.0
20°	872.4	875.3	876.8	885.7	885.7
22.5°	857.6	859.1	862.1	870.9	870.9
25°	838.4	841.4	847.3	854.7	856.2
27.5°	819.3	820.7	828.1	838.4	839.9
30°	794.2	798.6	807.4	819.3	820.7
32.5°	772.0	776.4	786.8	798.6	801.5
35°	744.0	749.9	761.7	776.4	779.4
37.5°	718.9	723.3	738.1	754.3	758.7
40°	687.9	696.7	711.5	730.7	738.1
42.5°	656.9	665.7	683.4	708.5	717.4
45°	624.4	634.7	656.9	684.9	696.7
47.5°	591.9	603.7	628.8	661.3	674.6
50°	555.0	569.8	600.8	637.7	652.4
52.5°	519.6	537.3	571.3	612.6	631.8
55°	482.7	500.4	544.7	587.5	608.2
57.5°	441.4	465.0	513.7	562.4	584.5
60°	403.0	425.1	484.2	537.3	559.5
62.5°	361.7	391.2	454.6	510.7	532.9
65°	318.8	351.3	423.6	479.7	501.9
67.5°	280.5	315.9	392.7	448.7	470.9
70°	234.7	279.0	358.7	414.8	436.9
72.5°	191.9	240.6	323.3	377.9	398.6
75°	150.6	205.2	286.4	335.1	345.4
77.5°	112.2	169.8	248.0	268.7	261.3
80°	79.7	135.8	193.4	183.0	187.5
82.5°	51.7	103.3	119.6	135.8	140.2
85°	29.5	60.5	73.8	79.7	82.7
87.5°	13.3	22.1	29.5	29.5	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)