

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: P310152

Luminaire Tested: **24FCZ2-45-UNV-L82765-RDP-CP125-W2A-U-4500K**

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: P310152
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: 24FCZ2-45-UNV-L82765-RDP-CP125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (168) 4500K 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: 2766.0 lumens
Efficiency: N/A
Efficacy: 72.2 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

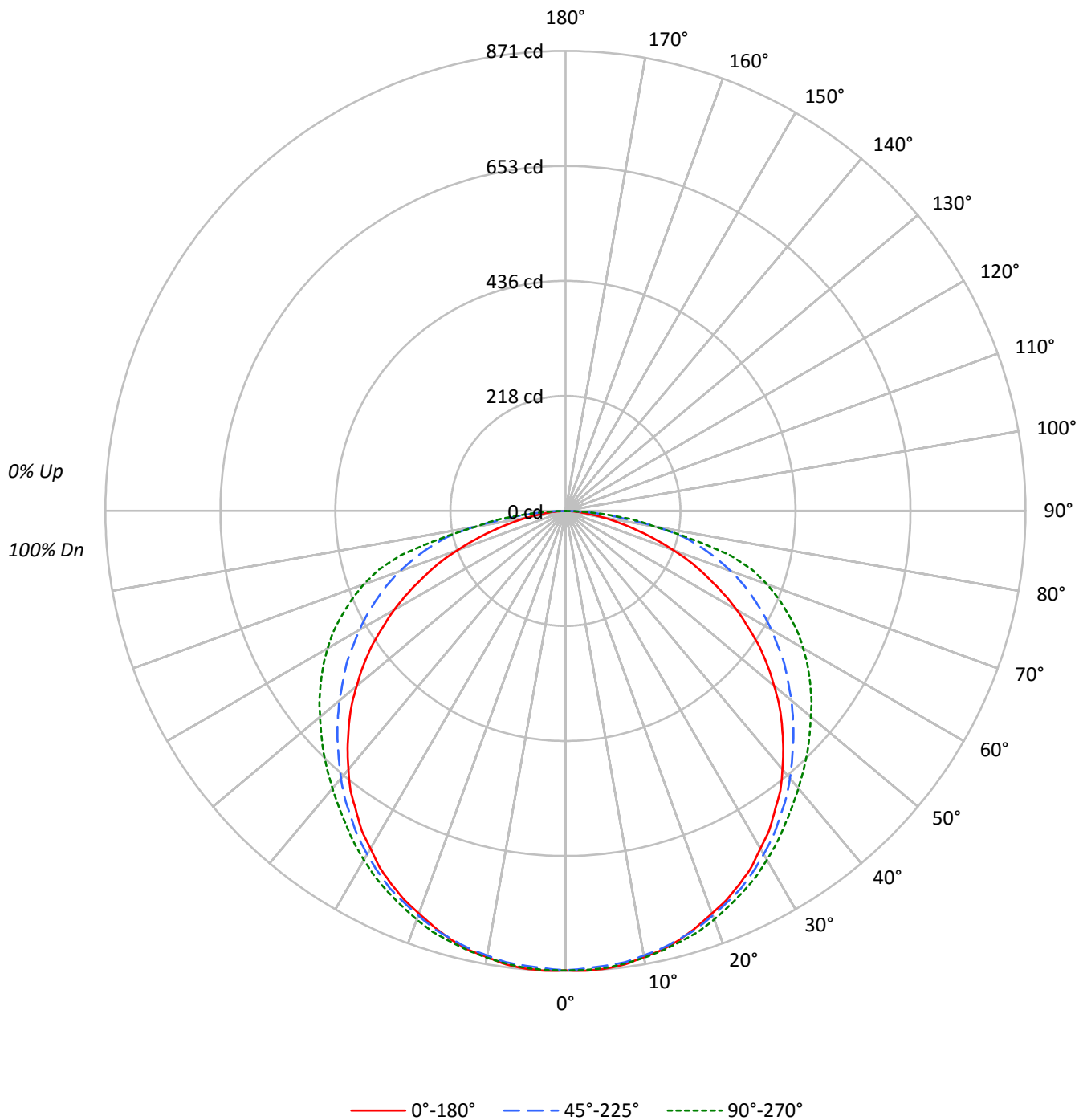
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	68	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°	1170	1170	1170
5°	1175	1167	1173
10°	1172	1168	1173
15°	1170	1168	1175
20°	1161	1167	1179
25°	1157	1169	1181
30°	1147	1166	1185
35°	1136	1163	1190
40°	1123	1162	1205
45°	1104	1162	1232
50°	1080	1169	1269
55°	1052	1188	1326
60°	1008	1211	1399
65°	943	1254	1485
70°	858	1312	1598
75°	727	1384	1669
80°	574	1392	1350
85°	423	1059	1186



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.5	3.0
10°-20°	237.5	8.6
20°-30°	363.1	13.1
30°-40°	443.9	16.0
40°-50°	473.1	17.1
50°-60°	452.4	16.4
60°-70°	383.2	13.9
70°-80°	257.6	9.3
80°-90°	72.6	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°	683.1	24.7
0°-40°	1127.1	40.7
0°-60°	2052.6	74.2
0°-90°	2766.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2766.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	870	870	870	870	870	
5°	870	868	864	868	868	83
15°	840	840	838	845	844	237
25°	779	782	788	794	796	359
35°	692	697	708	722	724	433
45°	580	590	610	637	648	448
55°	449	465	506	546	565	400
65°	296	326	394	446	466	294
75°	140	191	266	311	321	150
85°	27	56	69	74	77	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	869.8	869.8	869.8	869.8	869.8
2.5°	871.2	871.2	867.1	869.8	869.8
5°	869.8	868.5	864.3	868.5	868.5
7.5°	865.7	864.3	861.6	865.7	864.3
10°	857.5	857.5	854.7	858.9	858.9
12.5°	850.6	849.2	847.9	853.4	852.0
15°	839.6	839.6	838.3	845.1	843.8
17.5°	825.9	827.3	828.7	834.2	835.5
20°	810.8	813.6	814.9	823.2	823.2
22.5°	797.1	798.5	801.2	809.5	809.5
25°	779.3	782.0	787.5	794.4	795.7
27.5°	761.4	762.8	769.7	779.3	780.7
30°	738.1	742.2	750.5	761.4	762.8
32.5°	717.5	721.7	731.3	742.2	745.0
35°	691.5	697.0	707.9	721.7	724.4
37.5°	668.1	672.3	686.0	701.1	705.2
40°	639.3	647.6	661.3	679.1	686.0
42.5°	610.5	618.8	635.2	658.5	666.8
45°	580.3	589.9	610.5	636.6	647.6
47.5°	550.2	561.1	584.5	614.6	627.0
50°	515.9	529.6	558.4	592.7	606.4
52.5°	482.9	499.4	531.0	569.4	587.2
55°	448.6	465.1	506.3	546.0	565.3
57.5°	410.2	432.2	477.4	522.7	543.3
60°	374.5	395.1	450.0	499.4	520.0
62.5°	336.1	363.6	422.6	474.7	495.3
65°	296.3	326.5	393.8	445.9	466.5
67.5°	260.7	293.6	364.9	417.1	437.7
70°	218.1	259.3	333.4	385.5	406.1
72.5°	178.4	223.6	300.5	351.2	370.4
75°	139.9	190.7	266.2	311.4	321.0
77.5°	104.3	157.8	230.5	249.7	242.8
80°	74.1	126.2	179.7	170.1	174.2
82.5°	48.0	96.0	111.1	126.2	130.3
85°	27.4	56.3	68.6	74.1	76.8
87.5°	12.3	20.6	27.4	27.4	26.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)