

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: P310572

Luminaire Tested: **24FCZ2-30-UNV-L82765-CP250-W2A-U-3000K**

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: P310572
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30-UNV-L82765-CP250-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 3000K 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: 2429.0 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

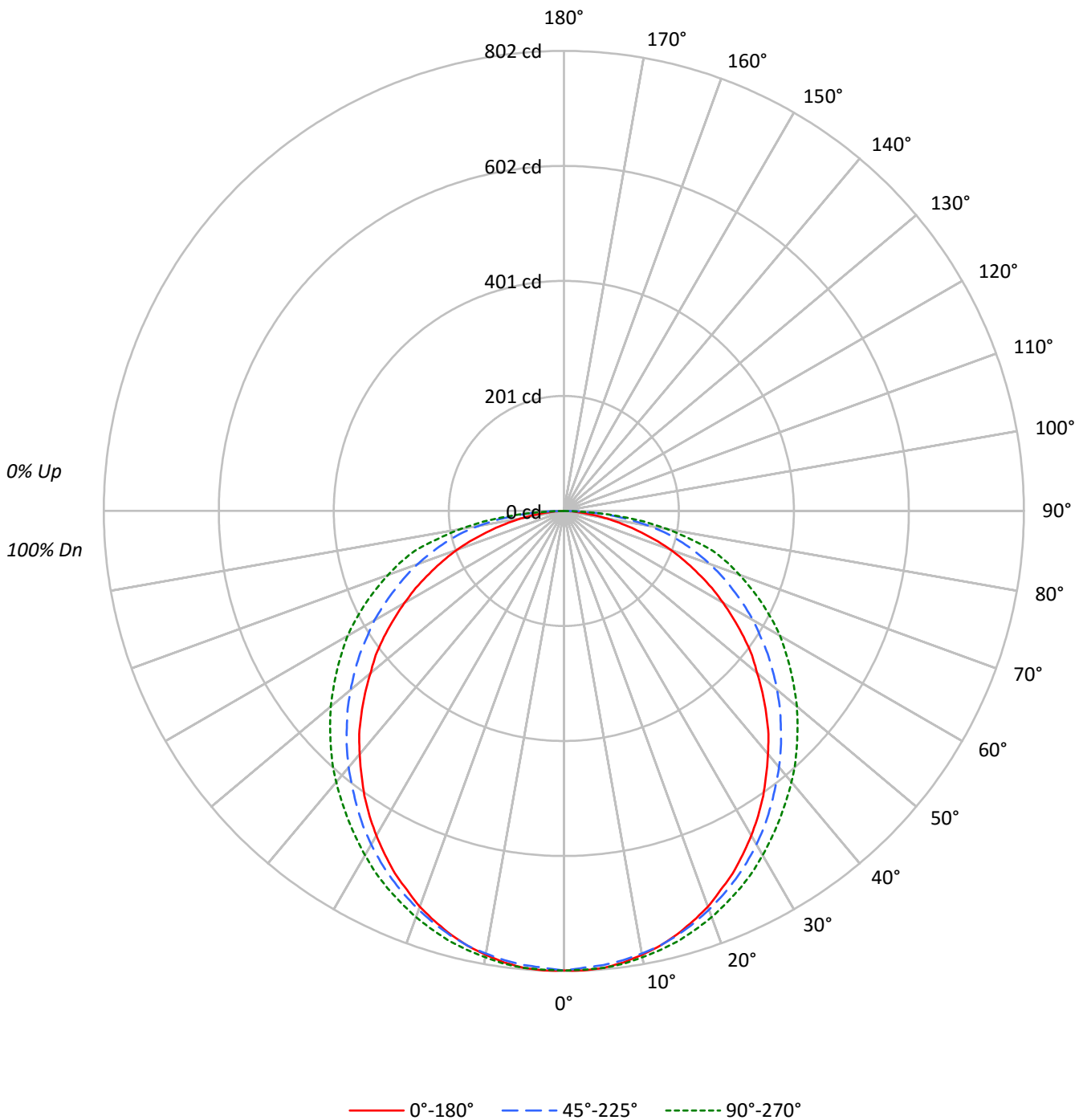
Input Watts (W): 23.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	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	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1078	1078	1078
5°	1080	1073	1080
10°	1074	1070	1079
15°	1064	1066	1080
20°	1051	1059	1079
25°	1035	1052	1078
30°	1015	1043	1077
35°	995	1033	1078
40°	973	1025	1084
45°	949	1018	1093
50°	921	1016	1110
55°	898	1017	1132
60°	863	1026	1171
65°	824	1037	1214
70°	780	1068	1281
75°	696	1115	1399
80°	594	1180	1430
85°	423	1170	1368



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.8	3.1
10°-20°	216.8	8.9
20°-30°	327.4	13.5
30°-40°	394.6	16.2
40°-50°	414.3	17.1
50°-60°	387.6	16.0
60°-70°	320.1	13.2
70°-80°	218.1	9.0
80°-90°	74.4	3.1
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°	620.0	25.5
0°-40°	1014.6	41.8
0°-60°	1816.5	74.8
0°-90°	2429.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2429.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	801	801	801	801	801	
5°	800	799	795	800	800	76
15°	764	765	766	774	775	215
25°	697	700	708	722	726	321
35°	606	612	629	650	656	379
45°	499	509	535	564	575	385
55°	383	398	434	469	483	342
65°	259	280	326	367	381	257
75°	134	164	214	255	269	143
85°	27	54	76	85	89	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	801.1	801.1	801.1	801.1	801.1
2.5°	801.9	801.1	797.0	801.1	800.3
5°	799.5	798.6	794.6	799.5	799.5
7.5°	793.8	793.8	789.8	795.4	796.2
10°	785.8	785.8	783.3	789.8	789.8
12.5°	776.1	776.1	776.1	782.5	783.3
15°	764.0	764.8	765.6	773.7	775.3
17.5°	749.5	751.1	753.5	763.2	764.8
20°	734.2	735.8	739.8	751.1	753.5
22.5°	714.8	718.9	724.5	737.4	739.8
25°	697.1	700.3	708.4	722.1	726.1
27.5°	675.3	680.2	690.7	705.2	710.8
30°	653.6	658.4	671.3	688.2	693.1
32.5°	630.2	637.5	651.2	668.9	674.5
35°	606.0	612.5	628.6	649.6	656.0
37.5°	579.4	588.3	606.0	628.6	636.7
40°	553.7	563.3	583.5	607.6	617.3
42.5°	527.9	537.5	560.1	587.5	597.2
45°	498.9	509.3	535.1	564.1	574.6
47.5°	469.8	482.7	510.9	541.6	552.8
50°	440.0	454.5	485.2	517.4	530.3
52.5°	413.4	427.1	459.4	494.0	506.1
55°	382.8	398.1	433.6	469.0	482.7
57.5°	351.4	368.3	406.2	444.9	458.6
60°	320.7	339.3	381.2	419.9	435.2
62.5°	290.9	309.5	353.0	393.3	408.6
65°	258.7	280.5	325.6	366.7	381.2
67.5°	228.1	251.4	299.0	339.3	353.8
70°	198.3	220.8	271.6	311.1	325.6
72.5°	166.0	191.8	242.6	283.7	299.0
75°	133.8	164.4	214.4	254.7	269.2
77.5°	104.0	135.4	185.4	218.4	225.7
80°	76.6	108.8	152.3	175.7	184.6
82.5°	49.2	81.4	116.0	133.0	140.2
85°	27.4	54.0	75.8	85.4	88.6
87.5°	11.3	23.4	30.6	34.7	34.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)