

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: P307605

Luminaire Tested: **14FCZ2-25-UNV-L82765-CP250-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: P307605
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-25-UNV-L82765-CP250-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" 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

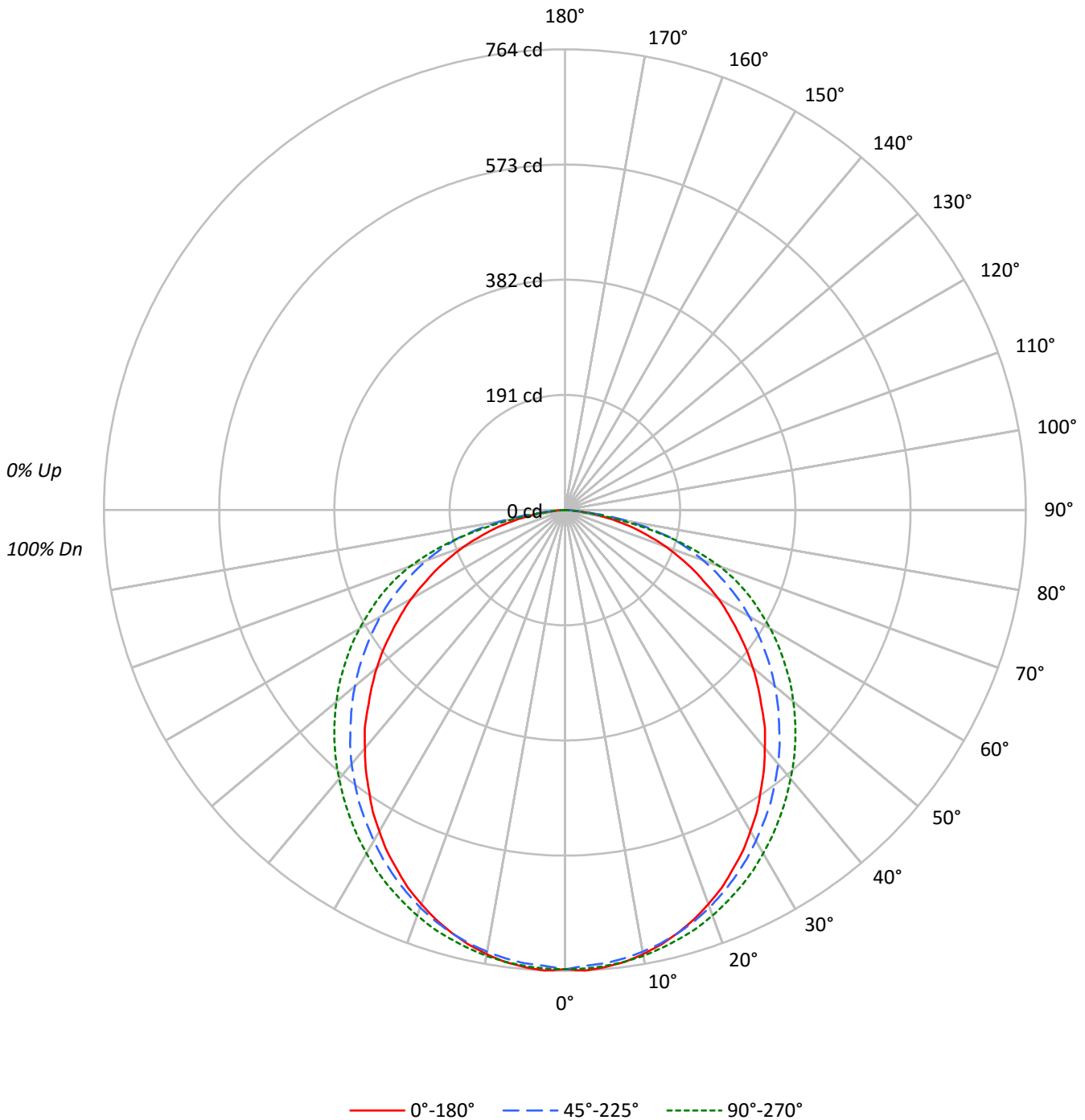
Lumens per Lamp: N/A
Luminaire Lumens: 2210.0 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 20
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	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2049	2049	2049
5°	2055	2038	2050
10°	2043	2032	2051
15°	2021	2022	2050
20°	1991	2008	2049
25°	1953	1988	2047
30°	1911	1968	2043
35°	1860	1951	2041
40°	1811	1932	2044
45°	1755	1911	2055
50°	1704	1902	2069
55°	1639	1896	2088
60°	1581	1899	2116
65°	1500	1904	2150
70°	1408	1919	2148
75°	1276	1937	1942
80°	1046	1672	1382
85°	775	790	318



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.0	3.3
10°-20°	205.8	9.3
20°-30°	310.0	14.0
30°-40°	372.0	16.8
40°-50°	387.7	17.5
50°-60°	359.0	16.2
60°-70°	290.0	13.1
70°-80°	176.8	8.0
80°-90°	36.5	1.7
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°	587.9	26.6
0°-40°	959.9	43.4
0°-60°	1706.6	77.2
0°-90°	2210.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2210.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	761	761	761	761	761	
5°	761	759	754	760	759	72
15°	725	726	726	736	736	204
25°	658	662	670	686	689	303
35°	566	575	594	616	621	355
45°	461	475	502	530	540	357
55°	349	368	404	436	445	313
65°	236	259	299	329	338	233
75°	123	150	186	189	187	129
85°	25	38	26	14	10	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	761.4	761.4	761.4	761.4	761.4
2.5°	764.3	761.8	756.4	761.8	760.9
5°	760.9	758.9	754.5	759.9	758.9
7.5°	755.9	754.0	750.0	756.4	755.4
10°	747.6	746.6	743.6	751.0	750.5
12.5°	737.7	737.2	735.7	744.1	743.6
15°	725.4	725.9	725.9	735.7	735.7
17.5°	711.6	712.6	714.5	725.4	726.9
20°	695.3	697.3	701.2	713.6	715.5
22.5°	678.6	680.0	686.0	700.7	702.7
25°	657.9	661.8	669.7	686.4	689.4
27.5°	638.2	641.6	652.4	669.7	674.6
30°	615.0	620.4	633.2	652.0	657.4
32.5°	592.8	598.7	613.5	635.2	640.1
35°	566.2	575.1	593.8	615.5	621.4
37.5°	542.1	550.4	571.6	595.3	602.2
40°	515.5	525.8	549.9	575.1	582.0
42.5°	490.8	500.7	526.8	552.4	561.8
45°	461.2	475.0	502.1	530.2	540.1
47.5°	434.1	447.9	479.0	509.0	517.9
50°	407.0	421.8	454.3	485.4	494.3
52.5°	379.0	394.7	429.7	460.8	471.1
55°	349.4	367.6	404.1	435.6	445.0
57.5°	321.3	340.0	379.0	411.0	420.3
60°	293.7	312.9	352.8	383.4	393.2
62.5°	263.1	285.8	327.2	357.3	364.7
65°	235.6	258.7	299.1	329.2	337.6
67.5°	206.5	231.6	272.0	299.6	307.5
70°	178.9	205.0	243.9	269.6	273.0
72.5°	149.3	175.9	215.3	231.6	231.6
75°	122.7	149.8	186.3	189.2	186.8
77.5°	93.6	123.7	147.3	141.4	135.5
80°	67.5	97.1	107.9	97.1	89.2
82.5°	45.3	70.5	65.0	51.7	45.8
85°	25.1	37.5	25.6	14.3	10.3
87.5°	9.4	8.4	2.5	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)