

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: P312151

Luminaire Tested: **14FCZ2-20-UNV-L83050-CP125-W2A-U-3500K**

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: P312151
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: 14FCZ2-20-UNV-L83050-CP125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (168) 3500K 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

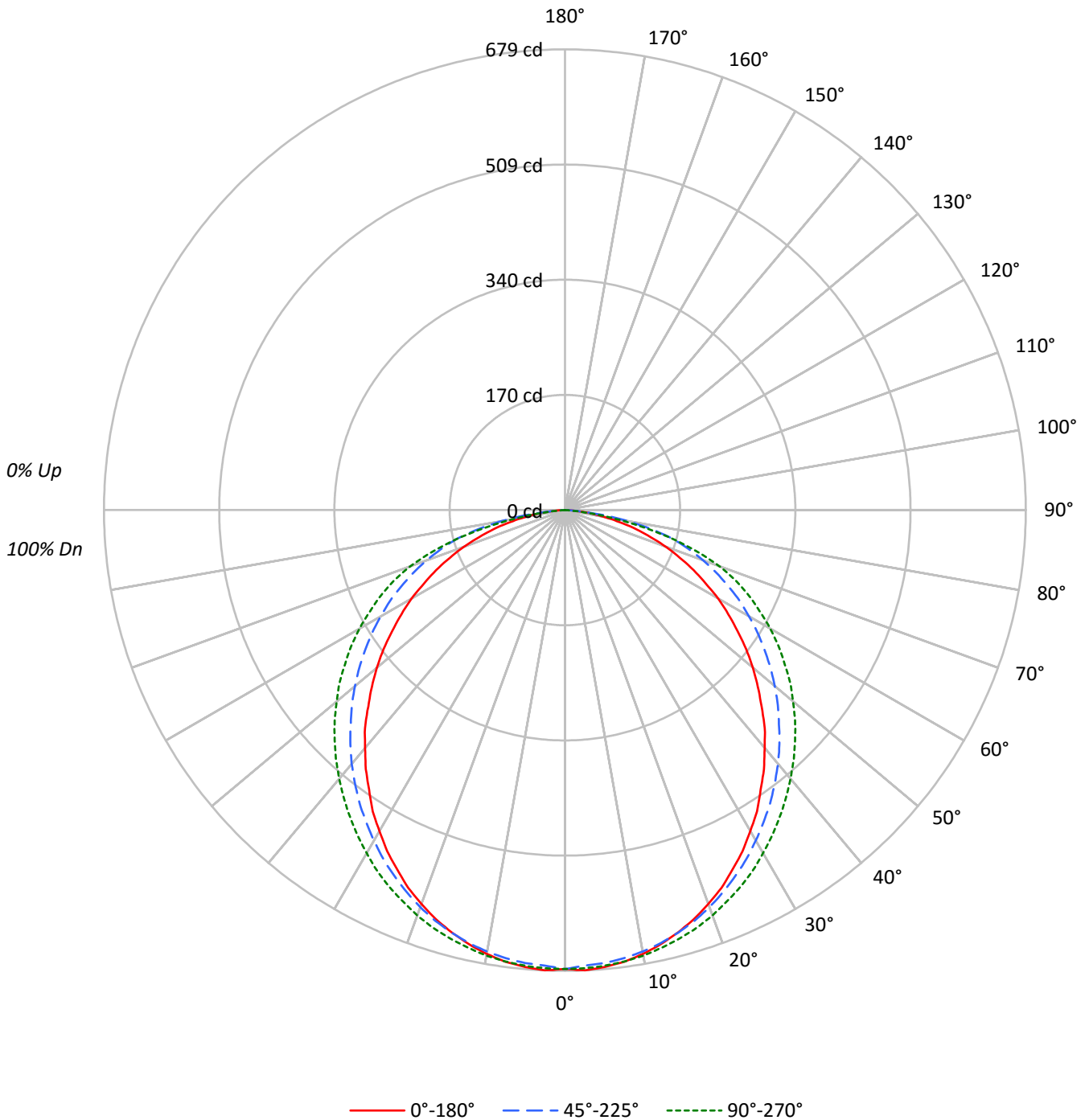
Lumens per Lamp: N/A
Luminaire Lumens: 1963.0 lumens
Efficiency: N/A
Efficacy: 119.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 16.5
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°	1820	1820	1820
5°	1826	1810	1821
10°	1814	1805	1821
15°	1795	1796	1821
20°	1769	1784	1820
25°	1735	1766	1818
30°	1698	1748	1814
35°	1652	1733	1813
40°	1608	1716	1816
45°	1559	1697	1826
50°	1513	1690	1838
55°	1456	1684	1855
60°	1404	1687	1880
65°	1332	1692	1909
70°	1250	1705	1908
75°	1133	1721	1725
80°	930	1486	1227
85°	689	704	284



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.0	3.3
10°-20°	182.8	9.3
20°-30°	275.4	14.0
30°-40°	330.4	16.8
40°-50°	344.4	17.5
50°-60°	318.8	16.2
60°-70°	257.6	13.1
70°-80°	157.1	8.0
80°-90°	32.4	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°	522.2	26.6
0°-40°	852.6	43.4
0°-60°	1515.9	77.2
0°-90°	1963.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1963.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	676	676	676	676	676	
5°	676	674	670	675	674	64
15°	644	645	645	654	654	182
25°	584	588	595	610	612	269
35°	503	511	527	547	552	315
45°	410	422	446	471	480	317
55°	310	326	359	387	395	278
65°	209	230	266	292	300	207
75°	109	133	166	168	166	114
85°	22	33	23	13	9	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	676.3	676.3	676.3	676.3	676.3
2.5°	678.9	676.7	671.9	676.7	675.8
5°	675.8	674.1	670.1	674.9	674.1
7.5°	671.4	669.7	666.2	671.9	671.0
10°	664.0	663.1	660.5	667.1	666.6
12.5°	655.2	654.8	653.5	660.9	660.5
15°	644.3	644.7	644.7	653.5	653.5
17.5°	632.1	632.9	634.7	644.3	645.6
20°	617.6	619.4	622.9	633.8	635.6
22.5°	602.7	604.0	609.3	622.4	624.2
25°	584.3	587.8	594.8	609.7	612.4
27.5°	566.8	569.9	579.5	594.8	599.2
30°	546.3	551.1	562.5	579.1	583.9
32.5°	526.6	531.8	544.9	564.2	568.6
35°	502.9	510.8	527.4	546.7	552.0
37.5°	481.5	488.9	507.7	528.8	534.9
40°	457.8	467.0	488.5	510.8	516.9
42.5°	436.0	444.7	467.9	490.7	499.0
45°	409.7	422.0	446.0	471.0	479.7
47.5°	385.6	397.9	425.5	452.2	460.0
50°	361.5	374.7	403.6	431.1	439.0
52.5°	336.6	350.6	381.7	409.3	418.4
55°	310.3	326.5	358.9	386.9	395.3
57.5°	285.4	302.0	336.6	365.0	373.4
60°	260.9	277.9	313.4	340.5	349.3
62.5°	233.7	253.9	290.6	317.3	323.9
65°	209.2	229.8	265.7	292.4	299.8
67.5°	183.4	205.7	241.6	266.1	273.1
70°	158.9	182.1	216.7	239.4	242.5
72.5°	132.6	156.3	191.3	205.7	205.7
75°	109.0	133.1	165.5	168.1	165.9
77.5°	83.2	109.9	130.9	125.6	120.4
80°	60.0	86.2	95.9	86.2	79.2
82.5°	40.3	62.6	57.8	46.0	40.7
85°	22.3	33.3	22.8	12.7	9.2
87.5°	8.3	7.4	2.2	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)