

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: P307831

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-CP250-W2A-U-5000K**

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: P307831
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
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-L82765-S-CP250-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB SHEET
Light Source: (168) 5000K 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: 1940.0 lumens
Efficiency: N/A
Efficacy: 114.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

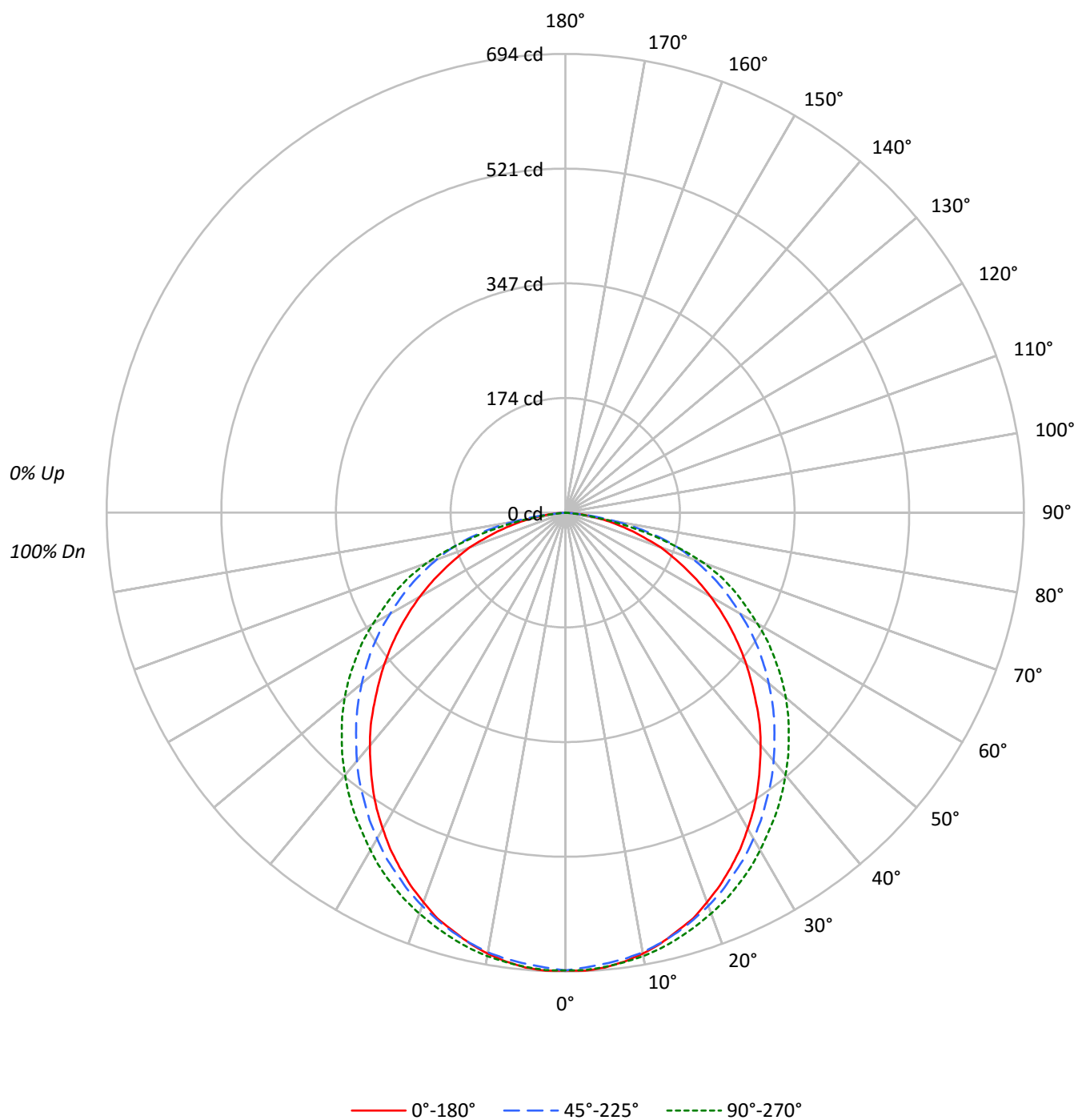
Input Watts (W): 16.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1864	1864	1864
5°	1865	1850	1863
10°	1850	1845	1861
15°	1825	1830	1854
20°	1796	1812	1848
25°	1759	1791	1842
30°	1716	1769	1832
35°	1668	1744	1827
40°	1615	1723	1821
45°	1556	1702	1819
50°	1498	1683	1824
55°	1435	1670	1818
60°	1366	1646	1807
65°	1286	1642	1807
70°	1211	1627	1756
75°	1050	1590	1500
80°	849	1282	998
85°	565	445	296



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.4	3.4
10°-20°	186.1	9.6
20°-30°	279.1	14.4
30°-40°	333.0	17.2
40°-50°	344.2	17.7
50°-60°	314.3	16.2
60°-70°	247.3	12.7
70°-80°	144.0	7.4
80°-90°	26.5	1.4
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°	530.6	27.4
0°-40°	863.6	44.5
0°-60°	1522.2	78.5
0°-90°	1940.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1940.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	692	692	692	692	692	
5°	691	689	685	691	690	65
15°	655	656	657	666	666	185
25°	592	595	603	618	620	273
35°	508	515	531	551	556	317
45°	409	422	447	472	478	316
55°	306	322	356	382	388	274
65°	202	223	258	278	284	201
75°	101	125	153	150	144	107
85°	18	26	14	12	10	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	692.5	692.5	692.5	692.5	692.5
2.5°	693.5	691.6	688.7	693.5	692.5
5°	690.6	688.7	684.9	690.6	689.7
7.5°	684.9	682.9	681.0	686.8	685.8
10°	677.2	676.2	675.2	682.0	681.0
12.5°	667.5	667.5	666.6	674.3	674.3
15°	655.0	656.0	657.0	665.6	665.6
17.5°	643.5	642.5	645.4	655.0	656.0
20°	627.1	629.1	632.9	644.5	645.4
22.5°	610.8	612.7	619.4	631.0	633.9
25°	592.5	595.4	603.1	617.5	620.4
27.5°	573.3	577.1	587.7	603.1	606.0
30°	552.1	557.9	569.4	586.7	589.6
32.5°	531.0	536.7	551.2	568.5	572.3
35°	507.9	514.6	531.0	551.2	556.0
37.5°	483.8	492.5	511.7	531.9	537.7
40°	459.8	469.4	490.6	511.7	518.4
42.5°	435.7	445.3	468.4	492.5	499.2
45°	408.8	422.3	447.3	472.3	478.1
47.5°	382.8	397.3	425.1	450.2	457.9
50°	357.8	372.2	402.1	428.0	435.7
52.5°	331.8	347.2	379.0	405.9	412.6
55°	305.9	322.2	355.9	381.9	387.6
57.5°	279.9	297.2	331.8	356.9	363.6
60°	253.9	272.2	305.9	330.9	335.7
62.5°	228.0	247.2	281.8	304.0	308.8
65°	202.0	223.2	257.8	278.0	283.8
67.5°	177.0	198.1	231.8	251.0	255.9
70°	153.9	173.1	206.8	221.2	223.2
72.5°	125.0	149.1	181.8	189.5	184.7
75°	101.0	125.0	152.9	150.1	144.3
77.5°	76.9	101.0	119.3	109.7	102.0
80°	54.8	78.9	82.7	68.3	64.4
82.5°	35.6	54.8	46.2	35.6	28.9
85°	18.3	26.0	14.4	11.5	9.6
87.5°	5.8	3.8	1.9	1.9	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)