

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: P307832

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-CP250-W2A-U-5500K**

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: P307832
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-5500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB SHEET
Light Source: (168) 5500K 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: 1959.0 lumens
Efficiency: N/A
Efficacy: 115.2 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

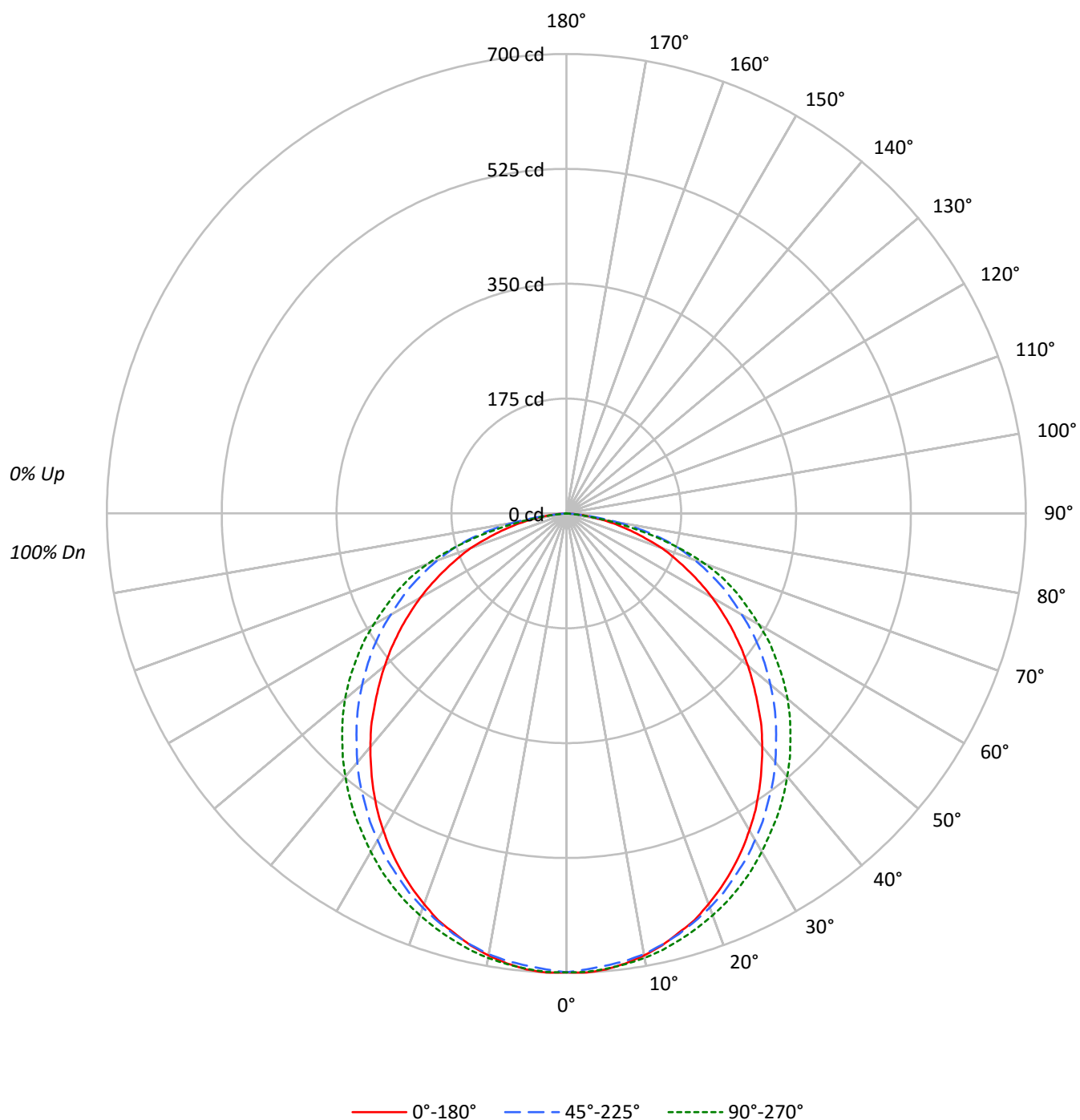
Input Watts (W): 17
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1882	1882	1882
5°	1884	1868	1881
10°	1868	1863	1879
15°	1843	1848	1872
20°	1814	1830	1866
25°	1776	1808	1860
30°	1732	1787	1850
35°	1685	1761	1844
40°	1631	1740	1839
45°	1571	1719	1837
50°	1513	1700	1842
55°	1449	1686	1836
60°	1380	1662	1824
65°	1299	1657	1824
70°	1223	1643	1773
75°	1061	1605	1515
80°	859	1294	1009
85°	571	451	299



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.0	3.4
10°-20°	187.9	9.6
20°-30°	281.9	14.4
30°-40°	336.3	17.2
40°-50°	347.6	17.7
50°-60°	317.4	16.2
60°-70°	249.8	12.7
70°-80°	145.4	7.4
80°-90°	26.8	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°	535.8	27.4
0°-40°	872.1	44.5
0°-60°	1537.1	78.5
0°-90°	1959.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1959.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	699	699	699	699	699	
5°	697	695	692	697	696	66
15°	662	662	663	672	672	187
25°	598	601	609	624	626	275
35°	513	520	536	557	561	321
45°	413	426	452	477	483	319
55°	309	325	359	386	391	276
65°	204	225	260	281	286	203
75°	102	126	154	152	146	108
85°	18	26	15	12	10	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	699.3	699.3	699.3	699.3	699.3
2.5°	700.3	698.4	695.4	700.3	699.3
5°	697.4	695.4	691.6	697.4	696.4
7.5°	691.6	689.6	687.7	693.5	692.5
10°	683.8	682.8	681.8	688.6	687.7
12.5°	674.1	674.1	673.1	680.9	680.9
15°	661.5	662.4	663.4	672.1	672.1
17.5°	649.8	648.8	651.7	661.5	662.4
20°	633.3	635.2	639.1	650.8	651.7
22.5°	616.8	618.7	625.5	637.2	640.1
25°	598.3	601.2	609.0	623.6	626.5
27.5°	578.9	582.8	593.5	609.0	611.9
30°	557.5	563.3	575.0	592.5	595.4
32.5°	536.2	542.0	556.6	574.0	577.9
35°	512.8	519.6	536.2	556.6	561.4
37.5°	488.6	497.3	516.7	537.1	543.0
40°	464.3	474.0	495.4	516.7	523.5
42.5°	440.0	449.7	473.0	497.3	504.1
45°	412.8	426.4	451.7	476.9	482.7
47.5°	386.6	401.1	429.3	454.6	462.3
50°	361.3	375.9	406.0	432.2	440.0
52.5°	335.1	350.6	382.7	409.9	416.7
55°	308.9	325.4	359.4	385.6	391.4
57.5°	282.6	300.1	335.1	360.3	367.1
60°	256.4	274.9	308.9	334.1	339.0
62.5°	230.2	249.6	284.6	306.9	311.8
65°	204.0	225.3	260.3	280.7	286.5
67.5°	178.7	200.1	234.1	253.5	258.4
70°	155.4	174.8	208.8	223.4	225.3
72.5°	126.3	150.6	183.6	191.3	186.5
75°	102.0	126.3	154.4	151.5	145.7
77.5°	77.7	102.0	120.4	110.7	103.0
80°	55.4	79.6	83.5	69.0	65.1
82.5°	35.9	55.4	46.6	35.9	29.1
85°	18.5	26.2	14.6	11.7	9.7
87.5°	5.8	3.9	1.9	1.9	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)