

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: P307796

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-CA08-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: P307796
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-CA08-W2A-U-5500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.08" ACRYLIC 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: 2111.0 lumens
Efficiency: N/A
Efficacy: 124.2 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

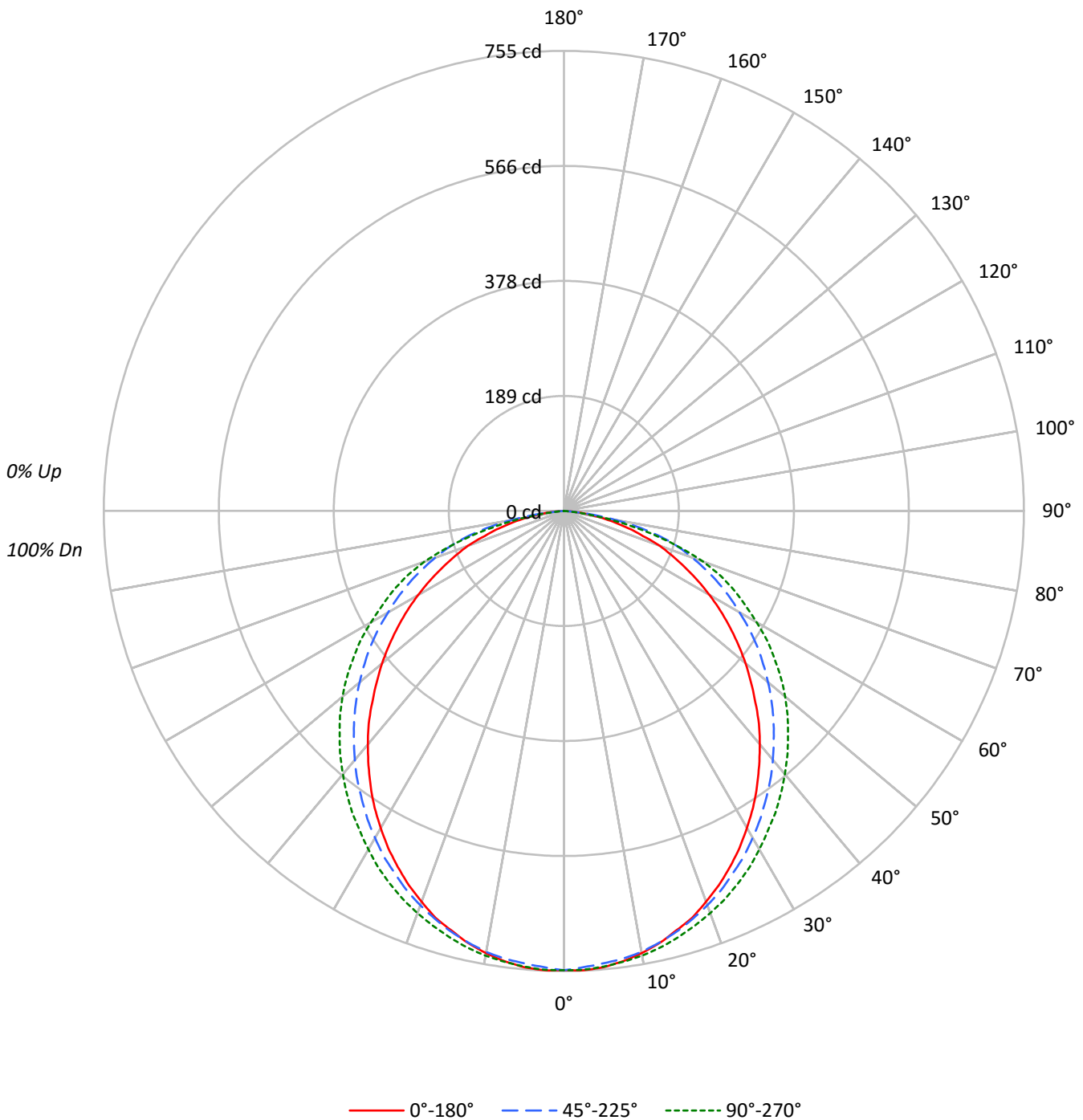
Input Watts (W): 17
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2028	2028	2028
5°	2030	2013	2027
10°	2013	2008	2025
15°	1986	1992	2018
20°	1954	1972	2011
25°	1914	1949	2004
30°	1867	1925	1994
35°	1815	1898	1987
40°	1757	1875	1982
45°	1693	1852	1980
50°	1630	1832	1985
55°	1561	1817	1979
60°	1487	1791	1966
65°	1400	1786	1966
70°	1318	1770	1910
75°	1143	1730	1632
80°	925	1395	1086
85°	614	485	324



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.2	3.4
10°-20°	202.5	9.6
20°-30°	303.8	14.4
30°-40°	362.3	17.2
40°-50°	374.6	17.7
50°-60°	342.0	16.2
60°-70°	269.1	12.7
70°-80°	156.7	7.4
80°-90°	28.9	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°	577.4	27.4
0°-40°	939.8	44.5
0°-60°	1656.3	78.5
0°-90°	2111.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2111.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	754	754	754	754	754	
5°	752	749	745	752	750	71
15°	713	714	715	724	724	201
25°	645	648	656	672	675	297
35°	553	560	578	600	605	345
45°	445	460	487	514	520	344
55°	333	351	387	416	422	298
65°	220	243	280	302	309	218
75°	110	136	166	163	157	117
85°	20	28	16	13	10	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	753.6	753.6	753.6	753.6	753.6
2.5°	754.6	752.5	749.4	754.6	753.6
5°	751.5	749.4	745.2	751.5	750.5
7.5°	745.2	743.1	741.0	747.3	746.3
10°	736.8	735.8	734.8	742.1	741.0
12.5°	726.4	726.4	725.3	733.7	733.7
15°	712.8	713.8	714.9	724.3	724.3
17.5°	700.2	699.2	702.3	712.8	713.8
20°	682.4	684.5	688.7	701.3	702.3
22.5°	664.6	666.7	674.0	686.6	689.7
25°	644.7	647.9	656.3	672.0	675.1
27.5°	623.8	628.0	639.5	656.3	659.4
30°	600.8	607.1	619.6	638.5	641.6
32.5°	577.8	584.0	599.7	618.6	622.8
35°	552.6	560.0	577.8	599.7	605.0
37.5°	526.5	535.9	556.8	578.8	585.1
40°	500.3	510.8	533.8	556.8	564.1
42.5°	474.1	484.6	509.7	535.9	543.2
45°	444.8	459.5	486.7	513.9	520.2
47.5°	416.6	432.3	462.6	489.8	498.2
50°	389.4	405.1	437.5	465.8	474.1
52.5°	361.1	377.8	412.4	441.7	449.0
55°	332.8	350.6	387.3	415.5	421.8
57.5°	304.6	323.4	361.1	388.3	395.6
60°	276.3	296.2	332.8	360.0	365.3
62.5°	248.1	269.0	306.7	330.7	336.0
65°	219.8	242.8	280.5	302.5	308.8
67.5°	192.6	215.6	252.2	273.2	278.4
70°	167.5	188.4	225.0	240.7	242.8
72.5°	136.1	162.2	197.8	206.2	201.0
75°	109.9	136.1	166.4	163.3	157.0
77.5°	83.7	109.9	129.8	119.3	110.9
80°	59.7	85.8	90.0	74.3	70.1
82.5°	38.7	59.7	50.2	38.7	31.4
85°	19.9	28.3	15.7	12.6	10.5
87.5°	6.3	4.2	2.1	2.1	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)