

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: P307522

Luminaire Tested: **14FCZ2-20-UNV-L82765-CA08-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: P307522
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-L82765-CA08-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" ACRYLIC 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: 1962.0 lumens
Efficiency: N/A
Efficacy: 118.2 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

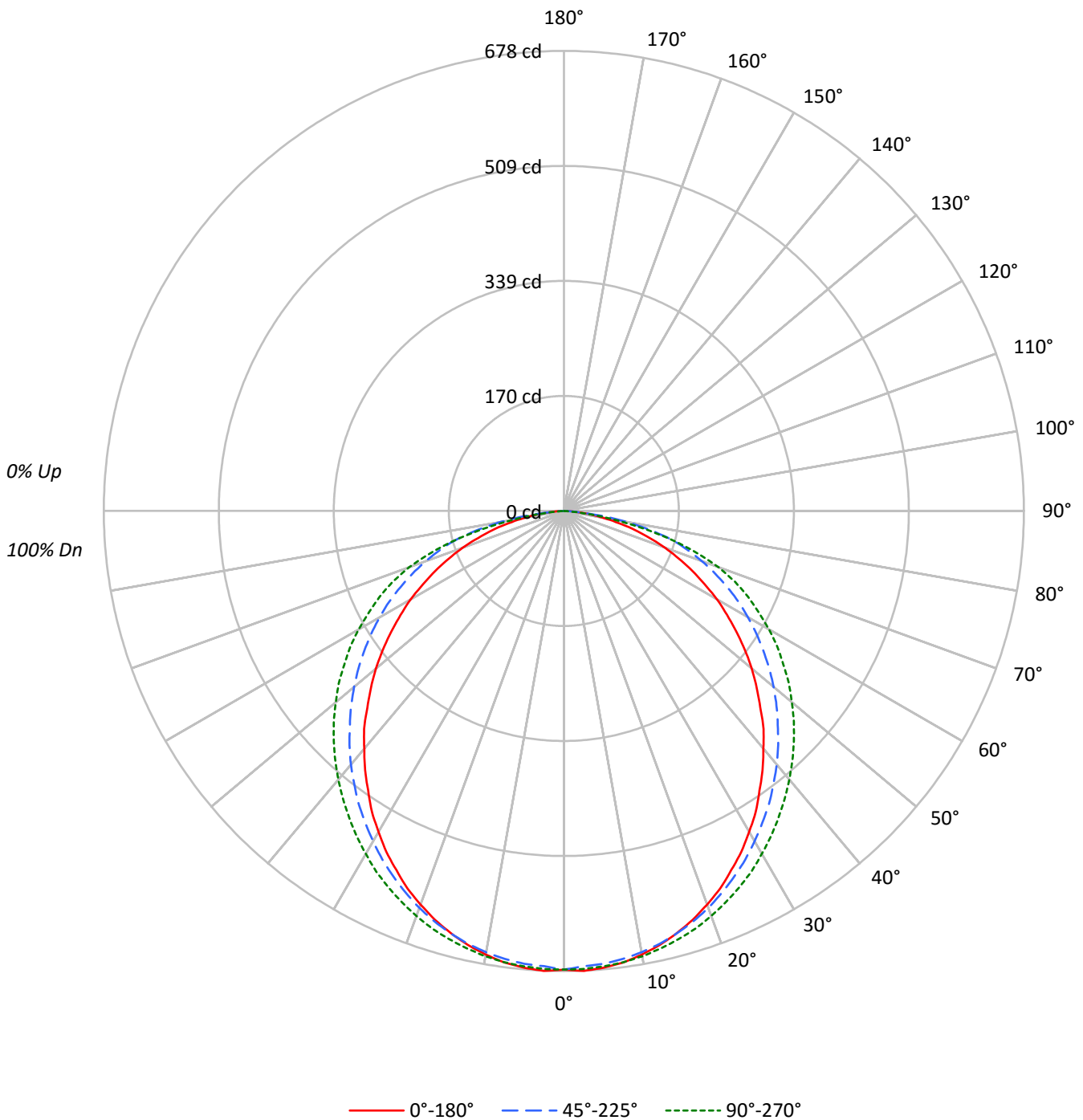
Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1819	1819	1819
5°	1825	1809	1820
10°	1814	1804	1821
15°	1794	1795	1820
20°	1768	1783	1819
25°	1734	1765	1817
30°	1697	1747	1813
35°	1651	1732	1812
40°	1607	1715	1815
45°	1558	1697	1825
50°	1513	1689	1837
55°	1455	1683	1853
60°	1403	1686	1879
65°	1331	1691	1908
70°	1249	1704	1907
75°	1132	1720	1724
80°	928	1485	1227
85°	689	701	284



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.0	3.3
10°-20°	182.7	9.3
20°-30°	275.2	14.0
30°-40°	330.3	16.8
40°-50°	344.2	17.5
50°-60°	318.7	16.2
60°-70°	257.5	13.1
70°-80°	157.0	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°	521.9	26.6
0°-40°	852.2	43.4
0°-60°	1515.1	77.2
0°-90°	1962.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1962.0	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	644	644	653	653	182
25°	584	588	594	609	612	269
35°	503	510	527	546	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	165	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°	675.9	675.9	675.9	675.9	675.9
2.5°	678.5	676.4	671.5	676.4	675.5
5°	675.5	673.7	669.8	674.6	673.7
7.5°	671.1	669.4	665.9	671.5	670.7
10°	663.7	662.8	660.2	666.7	666.3
12.5°	654.9	654.5	653.2	660.6	660.2
15°	644.0	644.4	644.4	653.2	653.2
17.5°	631.7	632.6	634.4	644.0	645.3
20°	617.3	619.0	622.5	633.5	635.2
22.5°	602.4	603.7	609.0	622.1	623.9
25°	584.0	587.5	594.5	609.4	612.0
27.5°	566.5	569.6	579.2	594.5	598.9
30°	546.0	550.8	562.2	578.8	583.6
32.5°	526.3	531.5	544.7	563.9	568.3
35°	502.7	510.5	527.2	546.4	551.7
37.5°	481.2	488.7	507.5	528.5	534.6
40°	457.6	466.8	488.2	510.5	516.7
42.5°	435.7	444.5	467.7	490.4	498.7
45°	409.5	421.7	445.8	470.7	479.5
47.5°	385.4	397.7	425.2	451.9	459.8
50°	361.4	374.5	403.4	430.9	438.8
52.5°	336.4	350.4	381.5	409.0	418.2
55°	310.2	326.4	358.7	386.7	395.0
57.5°	285.2	301.9	336.4	364.9	373.2
60°	260.7	277.8	313.2	340.4	349.1
62.5°	233.6	253.7	290.5	317.2	323.7
65°	209.1	229.7	265.6	292.2	299.7
67.5°	183.3	205.6	241.5	266.0	273.0
70°	158.8	182.0	216.6	239.3	242.4
72.5°	132.6	156.2	191.2	205.6	205.6
75°	108.9	133.0	165.4	168.0	165.8
77.5°	83.1	109.8	130.8	125.6	120.3
80°	59.9	86.2	95.8	86.2	79.2
82.5°	40.2	62.6	57.7	45.9	40.7
85°	22.3	33.2	22.7	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)