

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: P307637

Luminaire Tested: **14FCZ2-29-UNV-L82765-CP187-W2A-U-2700K**

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: P307637
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: 14FCZ2-29-UNV-L82765-CP187-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 2700K 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: 2406.0 lumens
Efficiency: N/A
Efficacy: 101.1 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

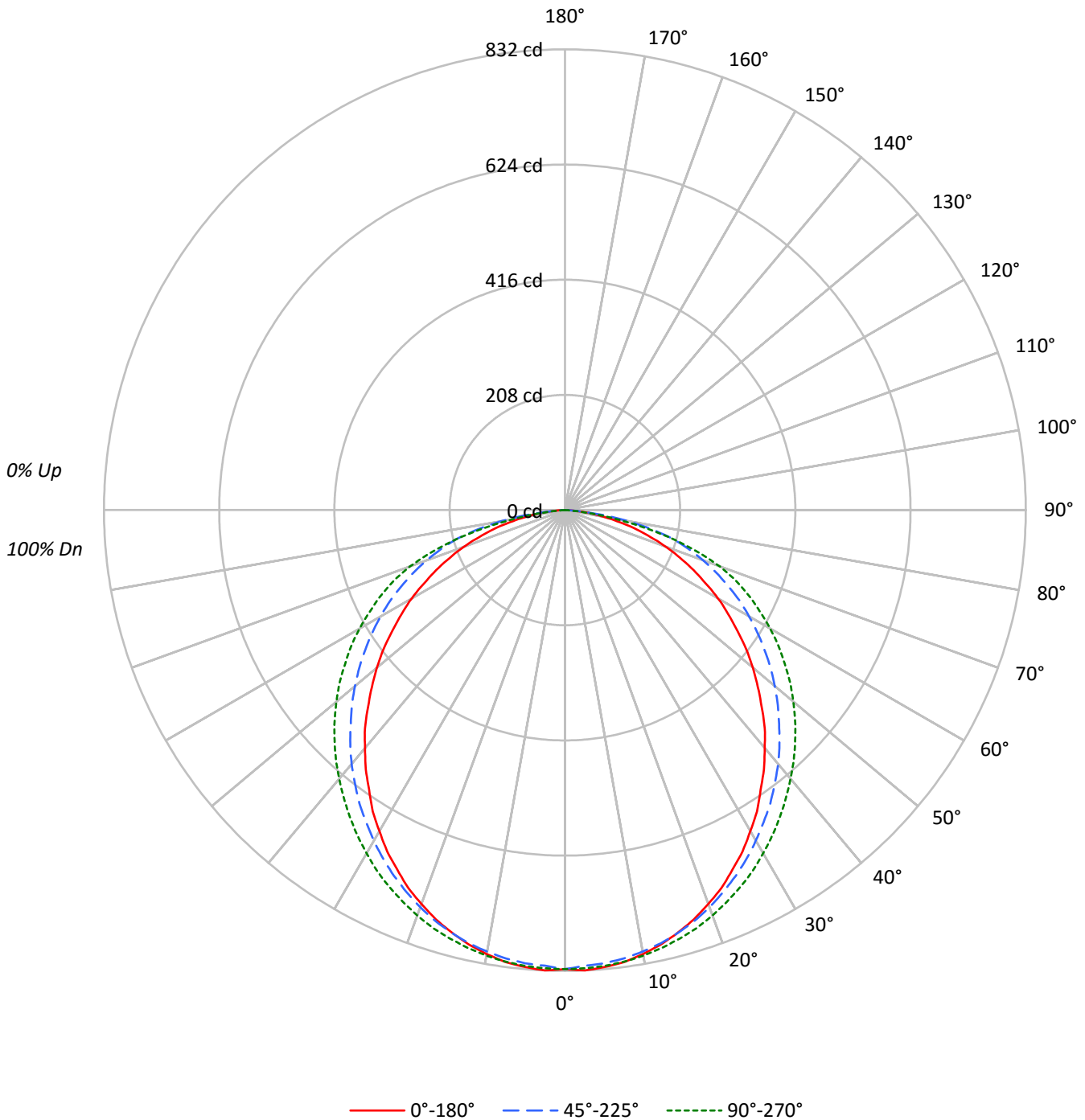
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2231	2231	2231
5°	2237	2219	2232
10°	2224	2212	2233
15°	2200	2201	2232
20°	2168	2186	2231
25°	2127	2165	2228
30°	2080	2142	2224
35°	2025	2124	2222
40°	1971	2103	2226
45°	1911	2081	2238
50°	1855	2071	2253
55°	1785	2064	2273
60°	1721	2067	2304
65°	1633	2073	2340
70°	1532	2090	2338
75°	1389	2109	2114
80°	1139	1821	1505
85°	846	861	349



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.4	3.3
10°-20°	224.1	9.3
20°-30°	337.5	14.0
30°-40°	405.0	16.8
40°-50°	422.1	17.5
50°-60°	390.8	16.2
60°-70°	315.8	13.1
70°-80°	192.5	8.0
80°-90°	39.8	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°	640.0	26.6
0°-40°	1045.0	43.4
0°-60°	1858.0	77.2
0°-90°	2406.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2406.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	829	829	829	829	829	
5°	828	826	821	827	826	79
15°	790	790	790	801	801	223
25°	716	720	729	747	750	330
35°	616	626	646	670	676	386
45°	502	517	547	577	588	388
55°	380	400	440	474	484	341
65°	256	282	326	358	368	254
75°	134	163	203	206	203	140
85°	27	41	28	16	11	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	828.9	828.9	828.9	828.9	828.9
2.5°	832.1	829.4	823.5	829.4	828.3
5°	828.3	826.2	821.4	827.3	826.2
7.5°	823.0	820.8	816.5	823.5	822.4
10°	813.9	812.8	809.6	817.6	817.1
12.5°	803.1	802.6	801.0	810.1	809.6
15°	789.7	790.2	790.2	801.0	801.0
17.5°	774.7	775.8	777.9	789.7	791.3
20°	757.0	759.1	763.4	776.8	779.0
22.5°	738.7	740.4	746.8	762.9	765.0
25°	716.2	720.5	729.1	747.3	750.5
27.5°	694.8	698.5	710.3	729.1	734.5
30°	669.5	675.4	689.4	709.8	715.7
32.5°	645.4	651.8	667.9	691.5	696.9
35°	616.4	626.1	646.5	670.1	676.5
37.5°	590.1	599.3	622.3	648.1	655.6
40°	561.2	572.4	598.7	626.1	633.6
42.5°	534.3	545.1	573.5	601.4	611.6
45°	502.2	517.2	546.7	577.3	588.0
47.5°	472.6	487.7	521.5	554.2	563.8
50°	443.1	459.2	494.6	528.4	538.1
52.5°	412.6	429.7	467.8	501.6	512.9
55°	380.4	400.2	439.9	474.3	484.4
57.5°	349.8	370.2	412.6	447.4	457.6
60°	319.7	340.7	384.1	417.4	428.1
62.5°	286.5	311.2	356.2	389.0	397.0
65°	256.4	281.7	325.6	358.4	367.5
67.5°	224.8	252.1	296.1	326.2	334.8
70°	194.7	223.2	265.6	293.5	297.2
72.5°	162.6	191.5	234.4	252.1	252.1
75°	133.6	163.1	202.8	206.0	203.3
77.5°	101.9	134.7	160.4	154.0	147.5
80°	73.5	105.7	117.5	105.7	97.1
82.5°	49.4	76.7	70.8	56.3	49.9
85°	27.4	40.8	27.9	15.6	11.3
87.5°	10.2	9.1	2.7	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)