

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: P307907

Luminaire Tested: **14FCZ2-29-UNV-L82765-S-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: P307907
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: 14FCZ2-29-UNV-L82765-S-CP187-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 2431.0 lumens
Efficiency: N/A
Efficacy: 102.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.27 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

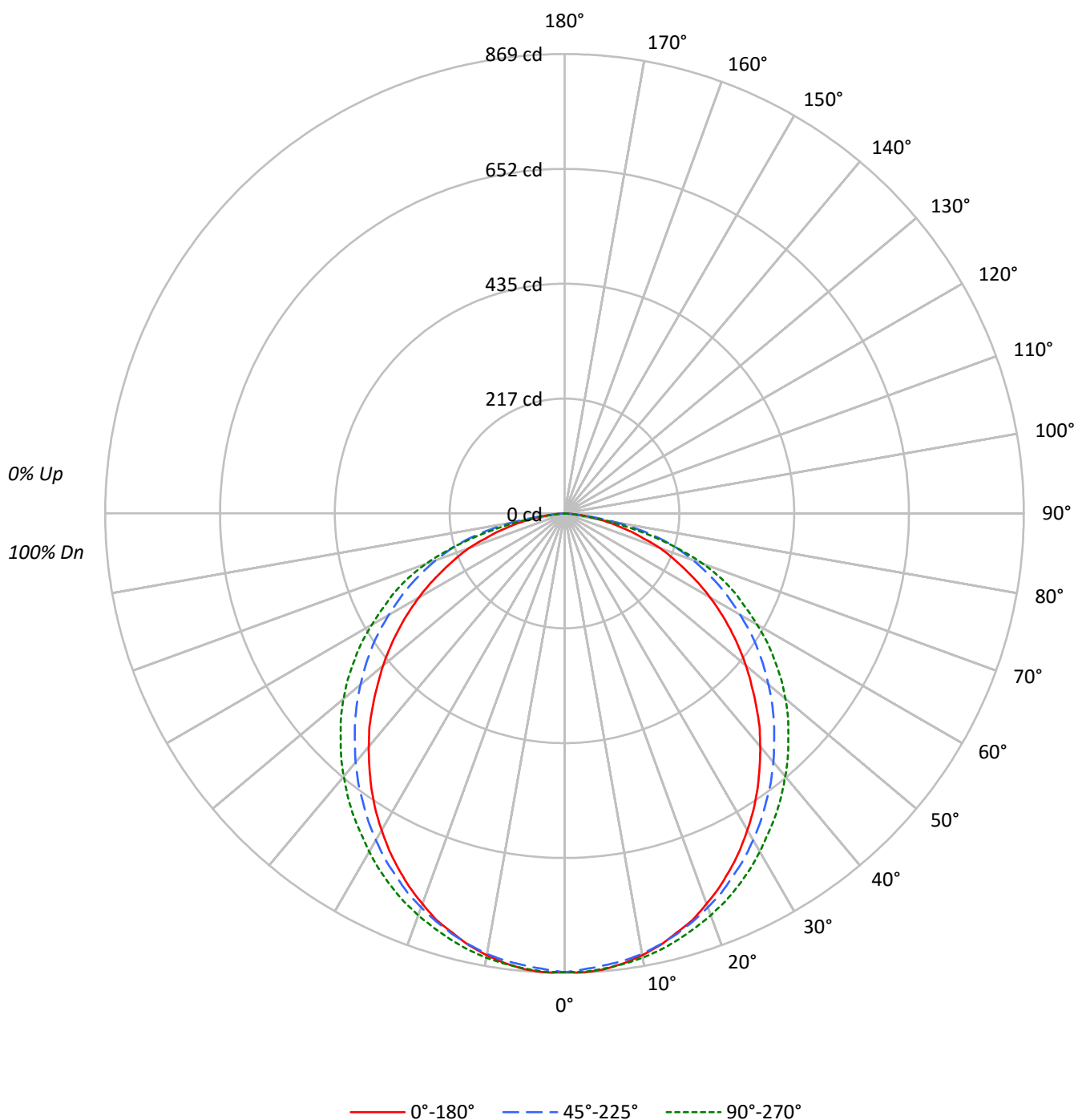
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10
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°	2335	2335	2335
5°	2338	2318	2334
10°	2319	2312	2332
15°	2287	2293	2324
20°	2251	2271	2316
25°	2205	2244	2308
30°	2150	2217	2296
35°	2091	2186	2289
40°	2024	2159	2282
45°	1950	2133	2280
50°	1877	2109	2286
55°	1798	2092	2279
60°	1713	2063	2264
65°	1612	2057	2264
70°	1518	2039	2200
75°	1316	1992	1880
80°	1065	1607	1252
85°	707	559	374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.9	3.4
10°-20°	233.2	9.6
20°-30°	349.8	14.4
30°-40°	417.3	17.2
40°-50°	431.4	17.7
50°-60°	393.8	16.2
60°-70°	309.9	12.7
70°-80°	180.4	7.4
80°-90°	33.2	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°	664.9	27.4
0°-40°	1082.2	44.5
0°-60°	1907.4	78.5
0°-90°	2431.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2431.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	868	868	868	868	868	
5°	865	863	858	865	864	82
15°	821	822	823	834	834	232
25°	742	746	756	774	777	342
35°	636	645	665	691	697	398
45°	512	529	560	592	599	396
55°	383	404	446	478	486	343
65°	253	280	323	348	356	251
75°	127	157	192	188	181	135
85°	23	32	18	14	12	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	867.8	867.8	867.8	867.8	867.8
2.5°	869.0	866.6	863.0	869.0	867.8
5°	865.4	863.0	858.2	865.4	864.2
7.5°	858.2	855.8	853.4	860.6	859.4
10°	848.5	847.3	846.1	854.6	853.4
12.5°	836.5	836.5	835.3	844.9	844.9
15°	820.8	822.0	823.2	834.1	834.1
17.5°	806.4	805.2	808.8	820.8	822.0
20°	785.9	788.3	793.1	807.6	808.8
22.5°	765.4	767.8	776.2	790.7	794.3
25°	742.5	746.1	755.7	773.8	777.4
27.5°	718.4	723.2	736.4	755.7	759.3
30°	691.9	699.1	713.5	735.2	738.9
32.5°	665.3	672.6	690.6	712.3	717.2
35°	636.4	644.8	665.3	690.6	696.7
37.5°	606.3	617.1	641.2	666.5	673.8
40°	576.1	588.2	614.7	641.2	649.7
42.5°	546.0	558.1	587.0	617.1	625.6
45°	512.3	529.1	560.5	591.8	599.0
47.5°	479.7	497.8	532.7	564.1	573.7
50°	448.4	466.5	503.8	536.4	546.0
52.5°	415.8	435.1	474.9	508.6	517.1
55°	383.3	403.8	446.0	478.5	485.7
57.5°	350.7	372.4	415.8	447.2	455.6
60°	318.2	341.1	383.3	414.6	420.7
62.5°	285.7	309.8	353.2	380.9	386.9
65°	253.1	279.6	323.0	348.3	355.6
67.5°	221.8	248.3	290.5	314.6	320.6
70°	192.9	217.0	259.1	277.2	279.6
72.5°	156.7	186.8	227.8	237.4	231.4
75°	126.6	156.7	191.6	188.0	180.8
77.5°	96.4	126.6	149.5	137.4	127.8
80°	68.7	98.8	103.7	85.6	80.8
82.5°	44.6	68.7	57.9	44.6	36.2
85°	22.9	32.5	18.1	14.5	12.1
87.5°	7.2	4.8	2.4	2.4	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)