

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: P307610

Luminaire Tested: **14FCZ2-29-UNV-L82765-CA08-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: P307610
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-CA08-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.08" ACRYLIC 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: 2571.0 lumens
Efficiency: N/A
Efficacy: 108.0 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

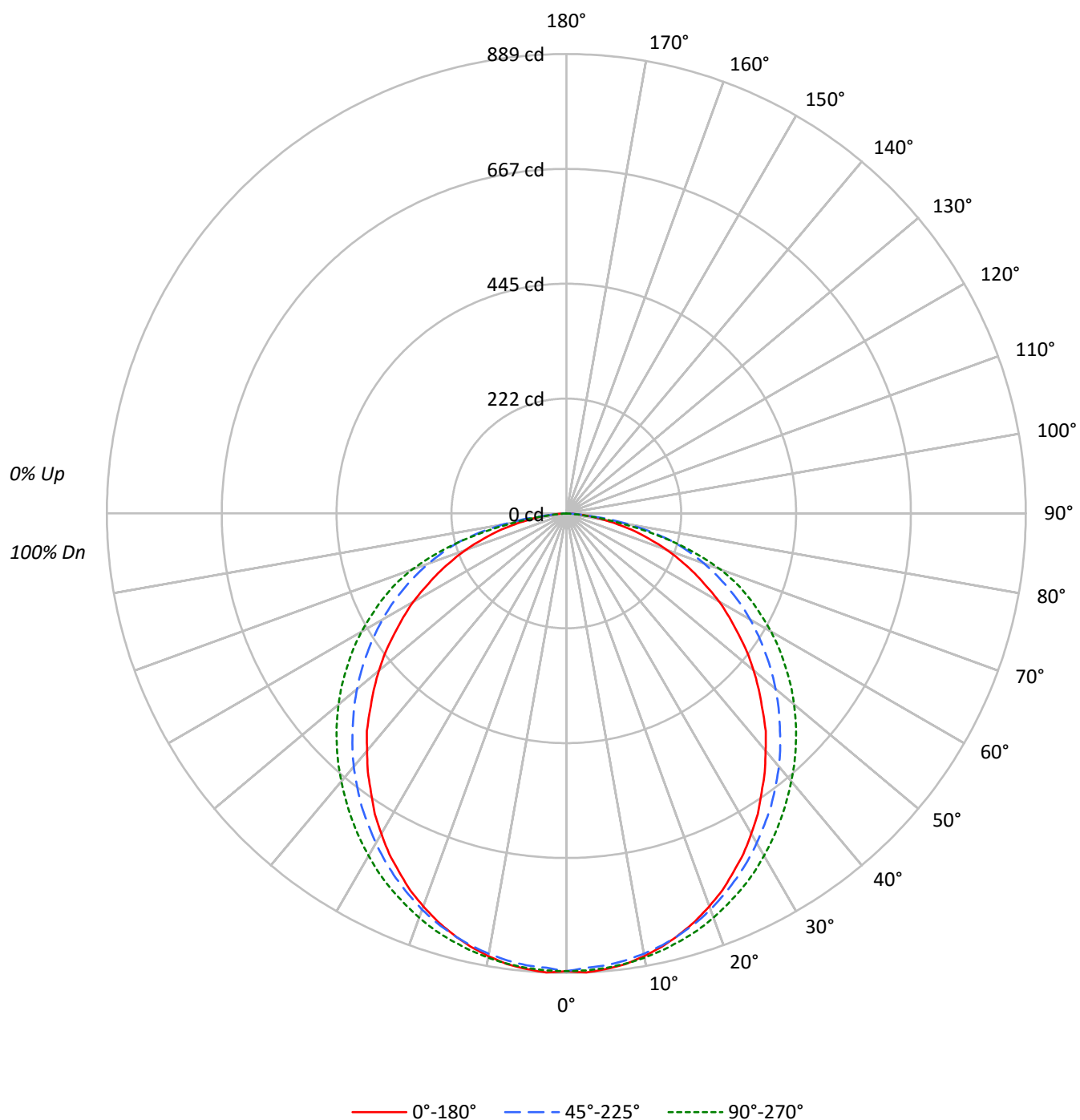
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91		93	90	88		83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		32
8	60	46	37	32	58	45	37	31	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	39	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2383	2383	2383
5°	2391	2371	2385
10°	2376	2364	2386
15°	2351	2352	2384
20°	2316	2336	2384
25°	2272	2313	2381
30°	2223	2289	2376
35°	2164	2269	2375
40°	2107	2248	2378
45°	2042	2223	2391
50°	1982	2213	2407
55°	1907	2206	2429
60°	1839	2209	2462
65°	1745	2216	2500
70°	1637	2233	2499
75°	1484	2253	2259
80°	1216	1945	1609
85°	902	920	371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.8	3.3
10°-20°	239.4	9.3
20°-30°	360.7	14.0
30°-40°	432.8	16.8
40°-50°	451.1	17.5
50°-60°	417.6	16.2
60°-70°	337.4	13.1
70°-80°	205.7	8.0
80°-90°	42.5	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°	683.9	26.6
0°-40°	1116.7	43.4
0°-60°	1985.4	77.2
0°-90°	2571.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2571.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	886	886	886	886	886	
5°	885	883	878	884	883	84
15°	844	844	844	856	856	238
25°	765	770	779	799	802	353
35°	659	669	691	716	723	413
45°	537	553	584	617	628	415
55°	406	428	470	507	518	364
65°	274	301	348	383	393	271
75°	143	174	217	220	217	150
85°	29	44	30	17	12	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	885.7	885.7	885.7	885.7	885.7
2.5°	889.2	886.3	880.0	886.3	885.1
5°	885.1	882.9	877.7	884.0	882.9
7.5°	879.4	877.1	872.5	880.0	878.8
10°	869.7	868.5	865.1	873.7	873.1
12.5°	858.2	857.6	855.9	865.7	865.1
15°	843.9	844.4	844.4	855.9	855.9
17.5°	827.8	829.0	831.3	843.9	845.6
20°	808.9	811.2	815.8	830.1	832.4
22.5°	789.4	791.1	798.0	815.2	817.5
25°	765.3	769.9	779.1	798.6	802.0
27.5°	742.4	746.4	759.0	779.1	784.8
30°	715.5	721.8	736.7	758.4	764.8
32.5°	689.7	696.5	713.7	739.0	744.7
35°	658.7	669.0	690.8	716.0	722.9
37.5°	630.6	640.4	665.0	692.5	700.5
40°	599.7	611.7	639.8	669.0	677.0
42.5°	571.0	582.5	612.8	642.6	653.5
45°	536.6	552.6	584.2	616.8	628.3
47.5°	505.1	521.1	557.2	592.2	602.5
50°	473.5	490.7	528.6	564.7	575.0
52.5°	440.9	459.2	499.9	536.0	548.1
55°	406.5	427.7	470.1	506.8	517.7
57.5°	373.8	395.6	440.9	478.1	489.0
60°	341.7	364.0	410.5	446.0	457.5
62.5°	306.1	332.5	380.7	415.6	424.2
65°	274.0	301.0	348.0	383.0	392.7
67.5°	240.2	269.4	316.5	348.6	357.7
70°	208.1	238.5	283.8	313.6	317.6
72.5°	173.7	204.7	250.5	269.4	269.4
75°	142.7	174.3	216.7	220.1	217.3
77.5°	108.9	143.9	171.4	164.5	157.7
80°	78.5	112.9	125.5	112.9	103.8
82.5°	52.7	82.0	75.7	60.2	53.3
85°	29.2	43.6	29.8	16.6	12.0
87.5°	10.9	9.7	2.9	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)