

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: P307916

Luminaire Tested: **14FCZ2-29-UNV-L82765-S-CP250-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: P307916
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-CP250-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" 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: 2411.0 lumens
Efficiency: N/A
Efficacy: 101.3 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

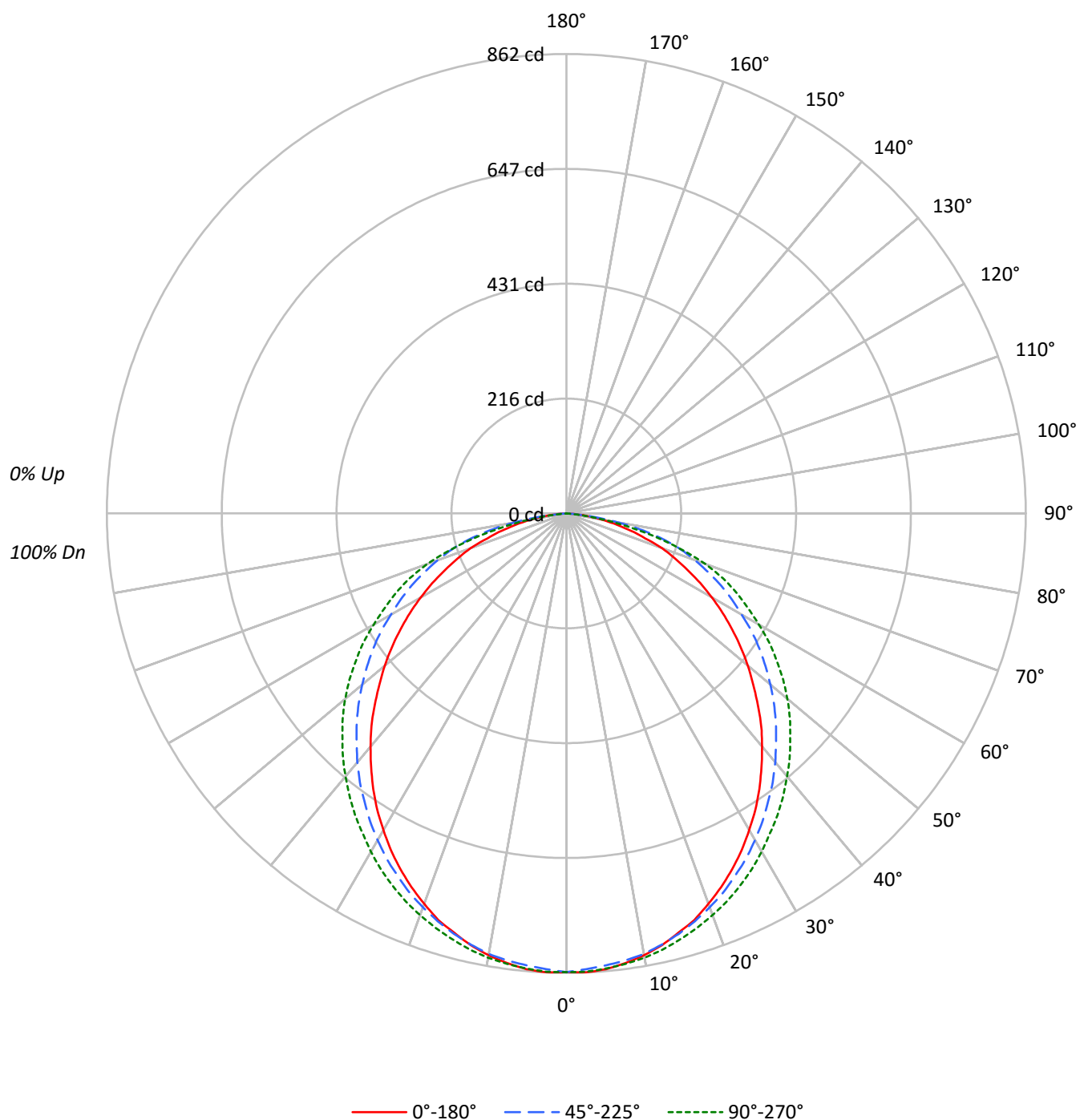
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2316	2316	2316
5°	2318	2299	2315
10°	2300	2293	2313
15°	2268	2275	2305
20°	2232	2253	2297
25°	2186	2225	2289
30°	2132	2199	2277
35°	2074	2168	2270
40°	2007	2142	2263
45°	1933	2116	2261
50°	1862	2092	2267
55°	1783	2075	2260
60°	1699	2046	2245
65°	1598	2040	2245
70°	1505	2022	2182
75°	1305	1976	1864
80°	1055	1593	1241
85°	701	553	371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.3	3.4
10°-20°	231.3	9.6
20°-30°	346.9	14.4
30°-40°	413.8	17.2
40°-50°	427.8	17.7
50°-60°	390.6	16.2
60°-70°	307.4	12.7
70°-80°	178.9	7.4
80°-90°	33.0	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°	659.5	27.4
0°-40°	1073.3	44.5
0°-60°	1891.7	78.5
0°-90°	2411.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2411.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	861	861	861	861	861	
5°	858	856	851	858	857	81
15°	814	815	816	827	827	230
25°	736	740	750	767	771	339
35°	631	640	660	685	691	395
45°	508	525	556	587	594	392
55°	380	400	442	475	482	340
65°	251	277	320	346	353	249
75°	126	155	190	186	179	133
85°	23	32	18	14	12	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	860.7	860.7	860.7	860.7	860.7
2.5°	861.9	859.5	855.9	861.9	860.7
5°	858.3	855.9	851.1	858.3	857.1
7.5°	851.1	848.7	846.3	853.5	852.3
10°	841.6	840.4	839.2	847.5	846.3
12.5°	829.6	829.6	828.4	838.0	838.0
15°	814.1	815.3	816.5	827.2	827.2
17.5°	799.7	798.5	802.1	814.1	815.3
20°	779.4	781.8	786.6	800.9	802.1
22.5°	759.1	761.5	769.8	784.2	787.8
25°	736.4	740.0	749.5	767.4	771.0
27.5°	712.5	717.2	730.4	749.5	753.1
30°	686.2	693.3	707.7	729.2	732.8
32.5°	659.9	667.0	685.0	706.5	711.3
35°	631.2	639.5	659.9	685.0	690.9
37.5°	601.3	612.0	636.0	661.1	668.2
40°	571.4	583.4	609.7	636.0	644.3
42.5°	541.5	553.5	582.2	612.0	620.4
45°	508.0	524.8	555.9	586.9	594.1
47.5°	475.8	493.7	528.4	559.4	569.0
50°	444.7	462.6	499.7	532.0	541.5
52.5°	412.4	431.5	471.0	504.5	512.8
55°	380.1	400.5	442.3	474.6	481.7
57.5°	347.9	369.4	412.4	443.5	451.9
60°	315.6	338.3	380.1	411.2	417.2
62.5°	283.3	307.2	350.3	377.7	383.7
65°	251.0	277.3	320.4	345.5	352.6
67.5°	220.0	246.3	288.1	312.0	318.0
70°	191.3	215.2	257.0	274.9	277.3
72.5°	155.4	185.3	225.9	235.5	229.5
75°	125.5	155.4	190.1	186.5	179.3
77.5°	95.6	125.5	148.2	136.3	126.7
80°	68.1	98.0	102.8	84.9	80.1
82.5°	44.2	68.1	57.4	44.2	35.9
85°	22.7	32.3	17.9	14.3	12.0
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)