

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: P312167

Luminaire Tested: **14FCZ2-25-UNV-L83050-CA08-W2A-U-4000K**

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: P312167
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: 14FCZ2-25-UNV-L83050-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 4000K 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: 2461.0 lumens
Efficiency: N/A
Efficacy: 122.4 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

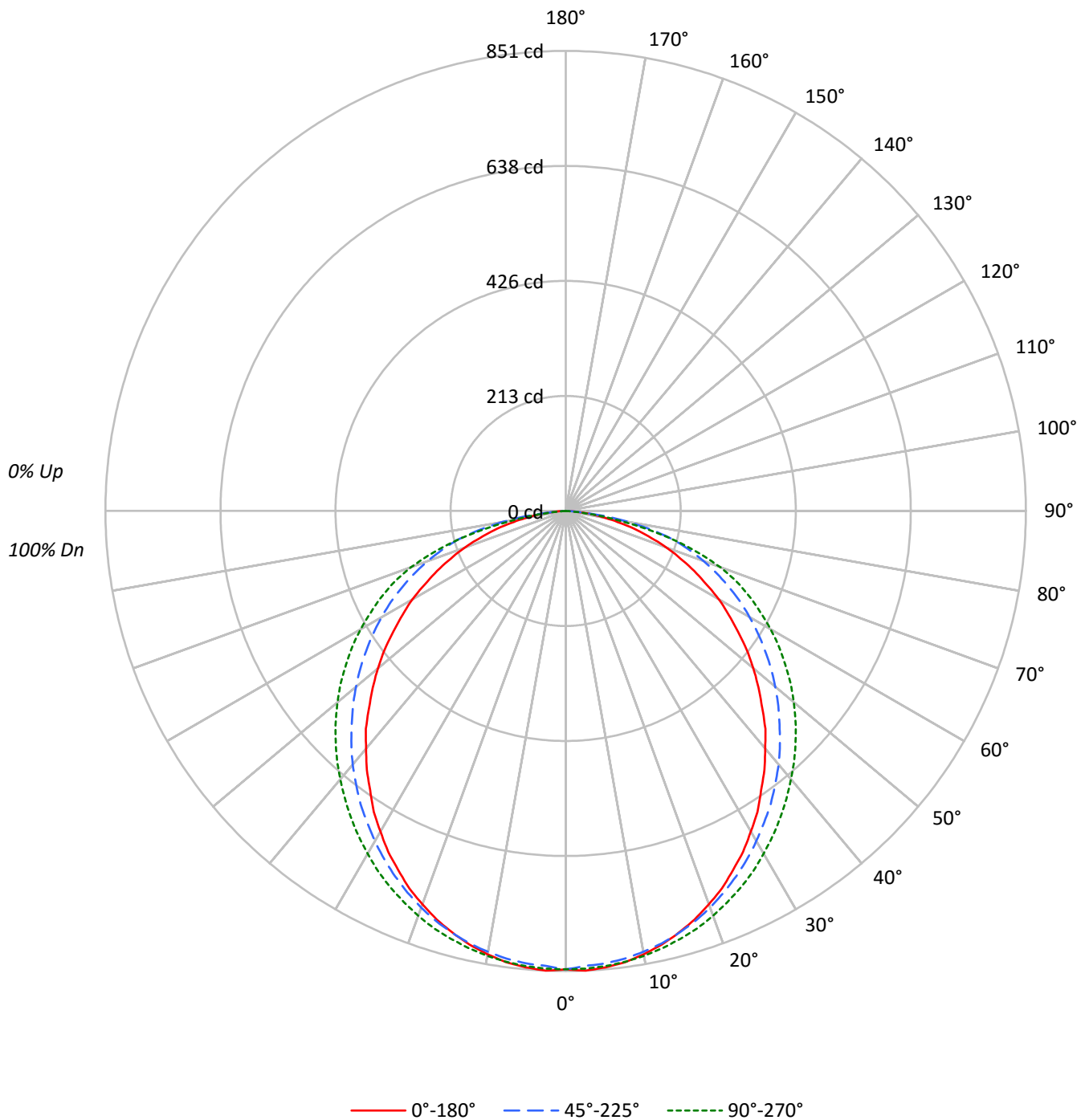
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2281	2281	2281
5°	2289	2269	2283
10°	2275	2263	2284
15°	2250	2252	2282
20°	2217	2236	2282
25°	2175	2214	2279
30°	2128	2191	2275
35°	2071	2172	2273
40°	2016	2151	2277
45°	1955	2128	2289
50°	1898	2118	2304
55°	1825	2111	2325
60°	1760	2115	2357
65°	1670	2121	2394
70°	1567	2137	2392
75°	1420	2156	2163
80°	1165	1863	1539
85°	865	880	355



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	3.3
10°-20°	229.2	9.3
20°-30°	345.2	14.0
30°-40°	414.3	16.8
40°-50°	431.8	17.5
50°-60°	399.7	16.2
60°-70°	323.0	13.1
70°-80°	196.9	8.0
80°-90°	40.6	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°	654.6	26.6
0°-40°	1068.9	43.4
0°-60°	1900.5	77.2
0°-90°	2461.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2461.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	848	848	848	848	848	
5°	847	845	840	846	845	80
15°	808	808	808	819	819	228
25°	733	737	746	764	768	338
35°	630	640	661	685	692	395
45°	514	529	559	590	601	397
55°	389	409	450	485	496	349
65°	262	288	333	367	376	259
75°	137	167	207	211	208	144
85°	28	42	28	16	12	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	847.8	847.8	847.8	847.8	847.8
2.5°	851.1	848.4	842.3	848.4	847.3
5°	847.3	845.1	840.1	846.2	845.1
7.5°	841.8	839.6	835.2	842.3	841.2
10°	832.5	831.4	828.1	836.3	835.7
12.5°	821.5	820.9	819.3	828.6	828.1
15°	807.8	808.3	808.3	819.3	819.3
17.5°	792.4	793.5	795.7	807.8	809.4
20°	774.3	776.5	780.9	794.6	796.8
22.5°	755.6	757.3	763.9	780.3	782.5
25°	732.6	737.0	745.8	764.4	767.7
27.5°	710.6	714.5	726.5	745.8	751.2
30°	684.8	690.9	705.1	726.0	732.0
32.5°	660.1	666.7	683.2	707.3	712.8
35°	630.5	640.4	661.2	685.4	692.0
37.5°	603.6	613.0	636.6	662.9	670.6
40°	574.0	585.5	612.4	640.4	648.1
42.5°	546.6	557.5	586.6	615.2	625.6
45°	513.6	529.0	559.2	590.5	601.4
47.5°	483.5	498.8	533.4	566.9	576.7
50°	453.3	469.7	505.9	540.5	550.4
52.5°	422.0	439.6	478.5	513.1	524.6
55°	389.1	409.4	450.0	485.1	495.5
57.5°	357.8	378.6	422.0	457.7	468.1
60°	327.1	348.5	392.9	426.9	437.9
62.5°	293.0	318.3	364.4	397.8	406.1
65°	262.3	288.1	333.1	366.6	375.9
67.5°	229.9	257.9	302.9	333.6	342.4
70°	199.2	228.3	271.6	300.2	304.0
72.5°	166.3	195.9	239.8	257.9	257.9
75°	136.6	166.8	207.4	210.7	208.0
77.5°	104.3	137.7	164.1	157.5	150.9
80°	75.2	108.1	120.2	108.1	99.3
82.5°	50.5	78.5	72.4	57.6	51.0
85°	28.0	41.7	28.5	15.9	11.5
87.5°	10.4	9.3	2.7	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)