

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: P307569

Luminaire Tested: **14FCZ2-25-UNV-L82765-CA08-W2A-U-4500K**

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: P307569
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-L82765-CA08-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 4500K 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: 2381.0 lumens
Efficiency: N/A
Efficacy: 119.1 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

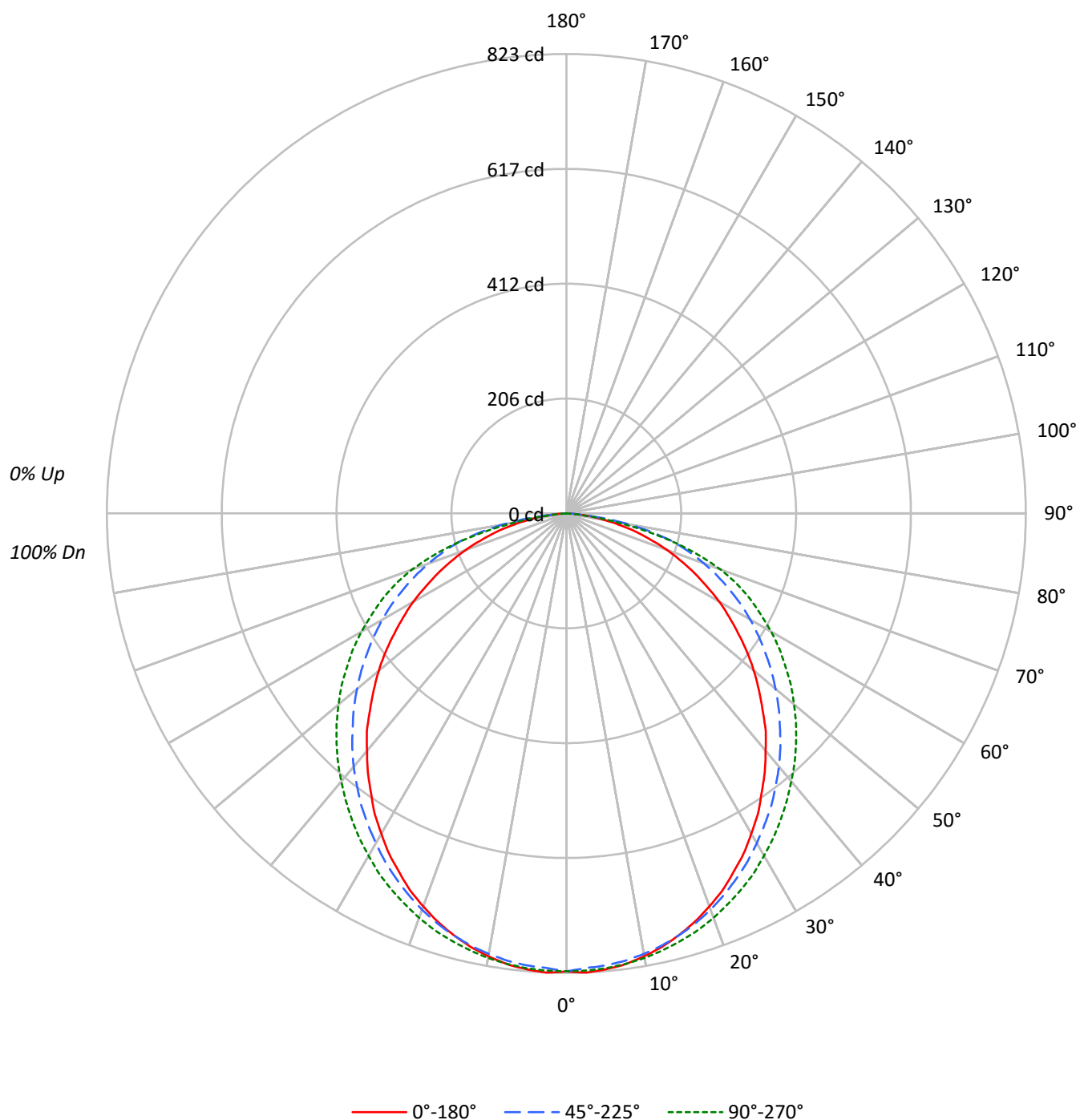
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2207	2207	2207
5°	2214	2196	2209
10°	2201	2189	2209
15°	2177	2179	2208
20°	2145	2164	2208
25°	2105	2142	2205
30°	2059	2120	2201
35°	2004	2102	2199
40°	1951	2081	2203
45°	1891	2059	2214
50°	1836	2049	2229
55°	1766	2042	2249
60°	1703	2046	2280
65°	1616	2052	2316
70°	1516	2068	2314
75°	1375	2087	2092
80°	1127	1802	1489
85°	837	852	343



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.6	3.3
10°-20°	221.7	9.3
20°-30°	334.0	14.0
30°-40°	400.8	16.8
40°-50°	417.8	17.5
50°-60°	386.8	16.2
60°-70°	312.5	13.1
70°-80°	190.5	8.0
80°-90°	39.3	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°	633.3	26.6
0°-40°	1034.2	43.4
0°-60°	1838.7	77.2
0°-90°	2381.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2381.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	820	820	820	820	820	
5°	820	818	813	819	818	78
15°	782	782	782	793	793	220
25°	709	713	722	740	743	327
35°	610	620	640	663	670	382
45°	497	512	541	571	582	384
55°	376	396	435	469	479	337
65°	254	279	322	355	364	251
75°	132	161	201	204	201	139
85°	27	40	28	15	11	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	820.3	820.3	820.3	820.3	820.3
2.5°	823.4	820.8	815.0	820.8	819.7
5°	819.7	817.6	812.8	818.7	817.6
7.5°	814.4	812.3	808.1	815.0	813.9
10°	805.4	804.3	801.1	809.1	808.6
12.5°	794.8	794.2	792.7	801.7	801.1
15°	781.5	782.0	782.0	792.7	792.7
17.5°	766.6	767.7	769.8	781.5	783.1
20°	749.1	751.2	755.5	768.8	770.9
22.5°	731.1	732.7	739.0	755.0	757.1
25°	708.8	713.0	721.5	739.6	742.7
27.5°	687.5	691.3	702.9	721.5	726.8
30°	662.6	668.4	682.2	702.4	708.2
32.5°	638.7	645.1	661.0	684.3	689.7
35°	610.0	619.6	639.8	663.1	669.5
37.5°	584.0	593.0	615.9	641.3	648.8
40°	555.3	566.5	592.5	619.6	627.0
42.5°	528.8	539.4	567.5	595.2	605.2
45°	496.9	511.8	541.0	571.3	581.9
47.5°	467.7	482.6	516.0	548.4	558.0
50°	438.5	454.5	489.5	523.0	532.5
52.5°	408.3	425.3	463.0	496.4	507.6
55°	376.4	396.1	435.3	469.3	479.4
57.5°	346.2	366.3	408.3	442.8	452.9
60°	316.4	337.1	380.1	413.1	423.7
62.5°	283.5	307.9	352.5	384.9	392.9
65°	253.8	278.7	322.3	354.7	363.7
67.5°	222.5	249.5	293.1	322.8	331.3
70°	192.7	220.9	262.8	290.4	294.1
72.5°	160.9	189.5	232.0	249.5	249.5
75°	132.2	161.4	200.7	203.9	201.2
77.5°	100.9	133.3	158.7	152.4	146.0
80°	72.7	104.6	116.3	104.6	96.1
82.5°	48.8	75.9	70.1	55.7	49.4
85°	27.1	40.3	27.6	15.4	11.1
87.5°	10.1	9.0	2.7	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)