

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: P307820

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-CP187-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: P307820
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: 14FCZ2-20-UNV-L82765-S-CP187-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB 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: 1896.0 lumens
Efficiency: N/A
Efficacy: 113.5 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

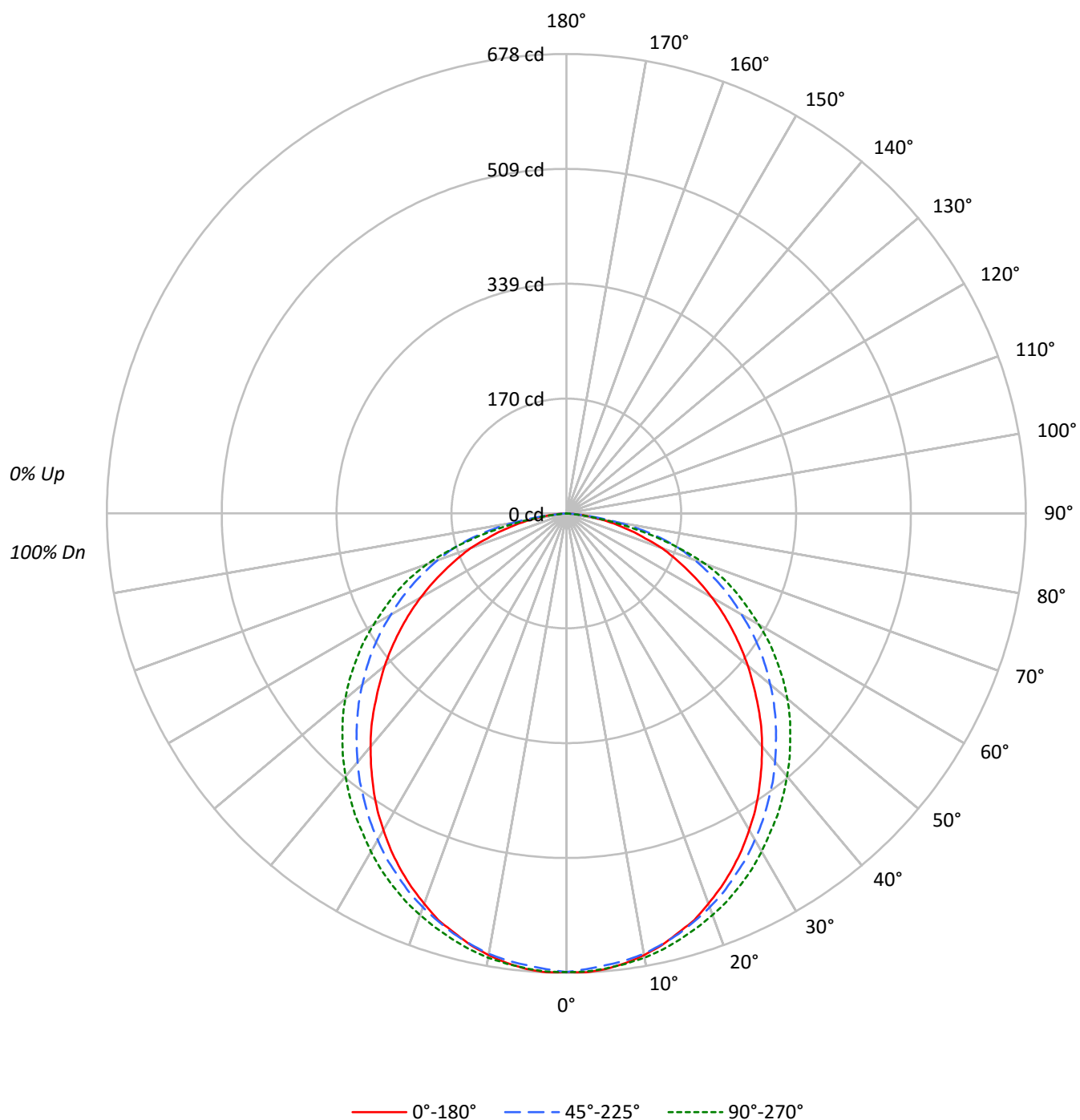
Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1821	1821	1821
5°	1823	1808	1821
10°	1808	1803	1819
15°	1784	1789	1812
20°	1755	1771	1806
25°	1719	1750	1800
30°	1677	1729	1791
35°	1630	1705	1785
40°	1578	1684	1780
45°	1520	1663	1778
50°	1464	1645	1783
55°	1402	1632	1777
60°	1336	1609	1766
65°	1257	1604	1766
70°	1183	1590	1716
75°	1026	1554	1466
80°	831	1252	976
85°	553	435	290



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.9	3.4
10°-20°	181.9	9.6
20°-30°	272.8	14.4
30°-40°	325.4	17.2
40°-50°	336.4	17.7
50°-60°	307.2	16.2
60°-70°	241.7	12.7
70°-80°	140.7	7.4
80°-90°	25.9	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°	518.6	27.4
0°-40°	844.0	44.5
0°-60°	1487.6	78.5
0°-90°	1896.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1896.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	677	677	677	677	677	
5°	675	673	669	675	674	64
15°	640	641	642	650	650	181
25°	579	582	589	604	606	267
35°	496	503	519	539	543	310
45°	400	413	437	462	467	308
55°	299	315	348	373	379	267
65°	197	218	252	272	277	196
75°	99	122	150	147	141	105
85°	18	25	14	11	9	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	676.8	676.8	676.8	676.8	676.8
2.5°	677.8	675.9	673.1	677.8	676.8
5°	675.0	673.1	669.3	675.0	674.0
7.5°	669.3	667.4	665.6	671.2	670.3
10°	661.8	660.9	659.9	666.5	665.6
12.5°	652.4	652.4	651.5	659.0	659.0
15°	640.2	641.1	642.1	650.5	650.5
17.5°	628.9	628.0	630.8	640.2	641.1
20°	612.9	614.8	618.6	629.8	630.8
22.5°	596.9	598.8	605.4	616.7	619.5
25°	579.1	581.9	589.4	603.5	606.3
27.5°	560.3	564.0	574.4	589.4	592.2
30°	539.6	545.2	556.5	573.4	576.3
32.5°	518.9	524.6	538.7	555.6	559.3
35°	496.3	502.9	518.9	538.7	543.4
37.5°	472.8	481.3	500.1	519.9	525.5
40°	449.3	458.7	479.4	500.1	506.7
42.5°	425.8	435.2	457.8	481.3	487.9
45°	399.5	412.7	437.1	461.6	467.2
47.5°	374.1	388.2	415.5	439.9	447.5
50°	349.7	363.8	392.9	418.3	425.8
52.5°	324.3	339.4	370.4	396.7	403.3
55°	298.9	314.9	347.8	373.2	378.8
57.5°	273.6	290.5	324.3	348.8	355.3
60°	248.2	266.0	298.9	323.4	328.1
62.5°	222.8	241.6	275.4	297.1	301.8
65°	197.4	218.1	251.9	271.7	277.3
67.5°	173.0	193.7	226.6	245.4	250.1
70°	150.4	169.2	202.1	216.2	218.1
72.5°	122.2	145.7	177.7	185.2	180.5
75°	98.7	122.2	149.5	146.6	141.0
77.5°	75.2	98.7	116.6	107.2	99.6
80°	53.6	77.1	80.8	66.7	63.0
82.5°	34.8	53.6	45.1	34.8	28.2
85°	17.9	25.4	14.1	11.3	9.4
87.5°	5.6	3.8	1.9	1.9	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)