

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: P307823

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-CP187-W2A-U-5500K**

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: P307823
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-5500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 5500K 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: 1975.0 lumens
Efficiency: N/A
Efficacy: 116.2 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

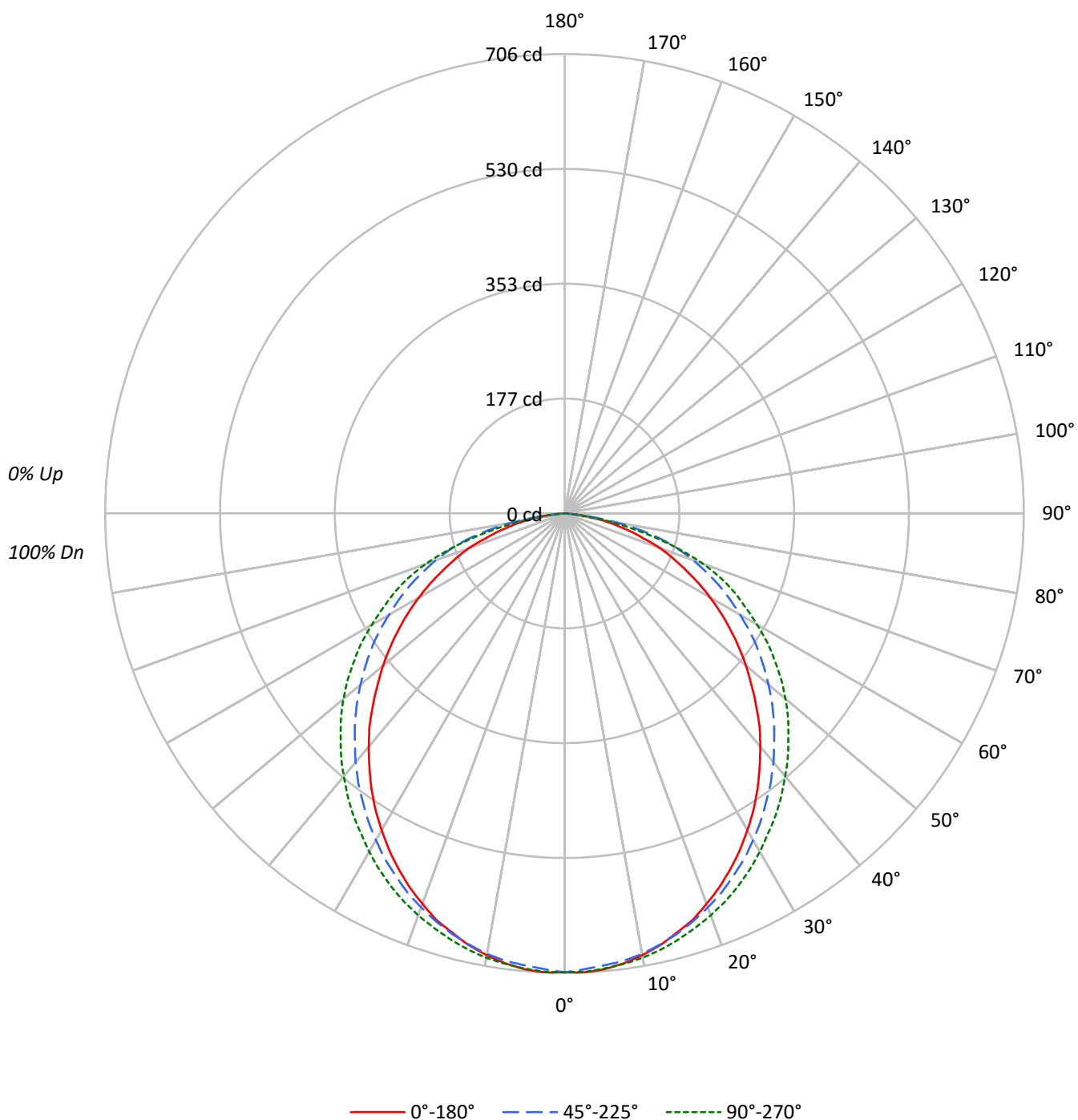
Input Watts (W): 17
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1897	1897	1897
5°	1899	1883	1897
10°	1884	1878	1894
15°	1858	1863	1888
20°	1828	1845	1882
25°	1791	1823	1875
30°	1747	1801	1865
35°	1698	1776	1859
40°	1644	1754	1854
45°	1584	1733	1852
50°	1525	1714	1857
55°	1461	1700	1851
60°	1391	1676	1839
65°	1309	1671	1840
70°	1233	1656	1788
75°	1069	1619	1527
80°	865	1305	1017
85°	574	454	303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.6	3.4
10°-20°	189.4	9.6
20°-30°	284.2	14.4
30°-40°	339.0	17.2
40°-50°	350.5	17.7
50°-60°	320.0	16.2
60°-70°	251.8	12.7
70°-80°	146.6	7.4
80°-90°	27.0	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°	540.2	27.4
0°-40°	879.2	44.5
0°-60°	1549.6	78.5
0°-90°	1975.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1975.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	705	705	705	705	705	
5°	703	701	697	703	702	67
15°	667	668	669	678	678	188
25°	603	606	614	629	632	278
35°	517	524	540	561	566	323
45°	416	430	455	481	487	321
55°	311	328	362	389	395	278
65°	206	227	262	283	289	204
75°	103	127	156	153	147	109
85°	19	26	15	12	10	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	705.0	705.0	705.0	705.0	705.0
2.5°	706.0	704.1	701.1	706.0	705.0
5°	703.1	701.1	697.2	703.1	702.1
7.5°	697.2	695.2	693.3	699.2	698.2
10°	689.4	688.4	687.4	694.3	693.3
12.5°	679.6	679.6	678.6	686.4	686.4
15°	666.9	667.8	668.8	677.6	677.6
17.5°	655.1	654.1	657.1	666.9	667.8
20°	638.5	640.4	644.3	656.1	657.1
22.5°	621.8	623.8	630.6	642.4	645.3
25°	603.2	606.1	614.0	628.7	631.6
27.5°	583.6	587.5	598.3	614.0	616.9
30°	562.1	568.0	579.7	597.3	600.3
32.5°	540.5	546.4	561.1	578.7	582.6
35°	517.0	523.9	540.5	561.1	566.0
37.5°	492.6	501.4	520.9	541.5	547.4
40°	468.1	477.9	499.4	520.9	527.8
42.5°	443.6	453.4	476.9	501.4	508.2
45°	416.2	429.9	455.3	480.8	486.7
47.5°	389.7	404.4	432.8	458.3	466.1
50°	364.3	379.0	409.3	435.8	443.6
52.5°	337.8	353.5	385.8	413.2	420.1
55°	311.4	328.0	362.3	388.8	394.6
57.5°	285.0	302.6	337.8	363.3	370.1
60°	258.5	277.1	311.4	336.9	341.7
62.5°	232.1	251.7	286.9	309.4	314.3
65°	205.6	227.2	262.4	283.0	288.9
67.5°	180.2	201.7	236.0	255.6	260.5
70°	156.7	176.3	210.5	225.2	227.2
72.5°	127.3	151.8	185.1	192.9	188.0
75°	102.8	127.3	155.7	152.8	146.9
77.5°	78.3	102.8	121.4	111.6	103.8
80°	55.8	80.3	84.2	69.5	65.6
82.5°	36.2	55.8	47.0	36.2	29.4
85°	18.6	26.4	14.7	11.8	9.8
87.5°	5.9	3.9	2.0	2.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)