

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: P307819

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-CP187-W2A-U-3500K**

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: P307819
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-3500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 3500K 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: 1855.0 lumens
Efficiency: N/A
Efficacy: 111.7 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

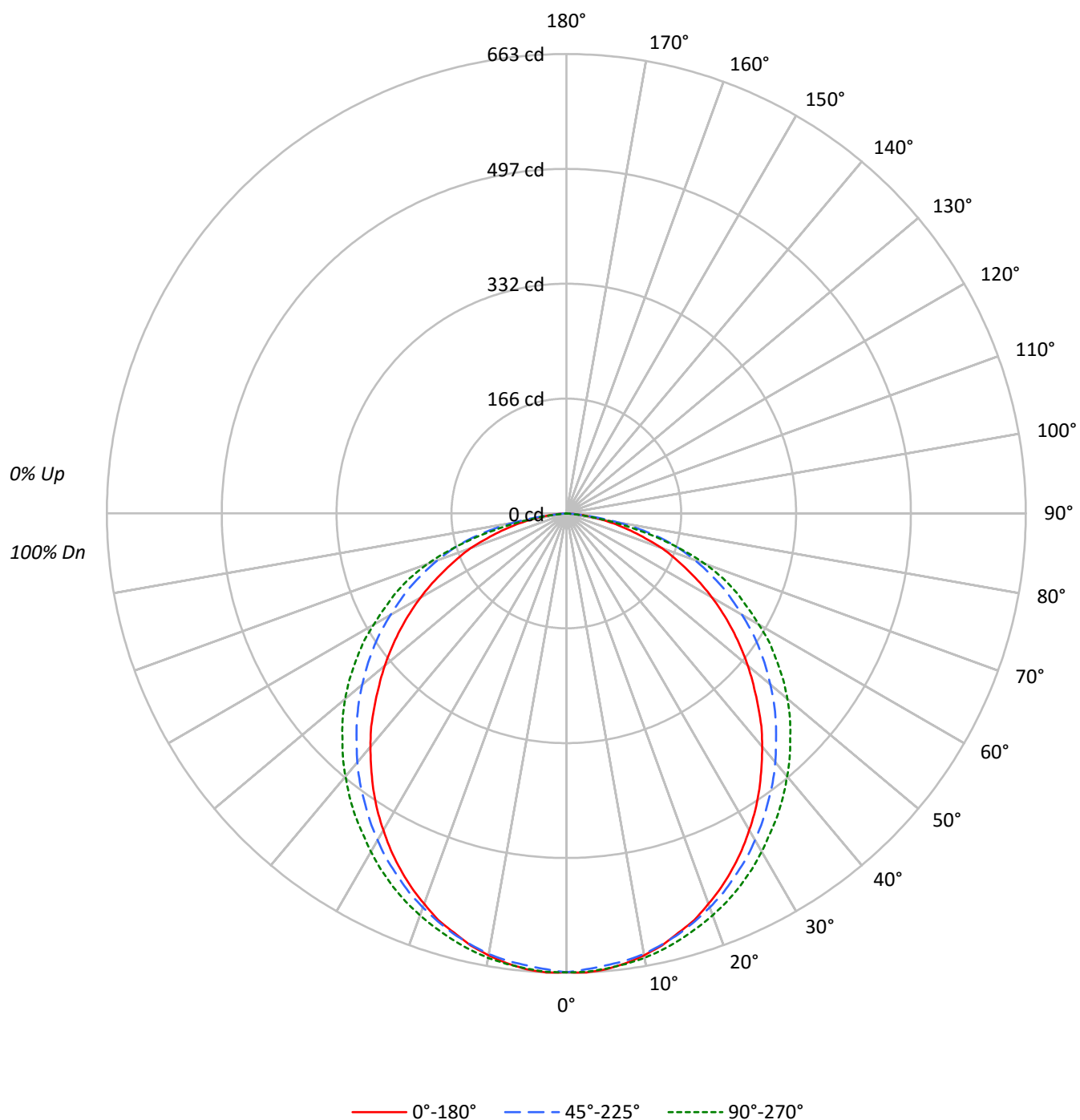
Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1782	1782	1782
5°	1784	1769	1781
10°	1769	1764	1779
15°	1745	1750	1773
20°	1717	1733	1767
25°	1682	1712	1761
30°	1640	1692	1752
35°	1595	1668	1746
40°	1544	1648	1741
45°	1488	1628	1740
50°	1432	1609	1744
55°	1372	1597	1739
60°	1307	1574	1728
65°	1230	1570	1727
70°	1158	1555	1679
75°	1004	1520	1435
80°	812	1226	955
85°	540	426	284



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.5	3.4
10°-20°	177.9	9.6
20°-30°	266.9	14.4
30°-40°	318.4	17.2
40°-50°	329.2	17.7
50°-60°	300.5	16.2
60°-70°	236.5	12.7
70°-80°	137.7	7.4
80°-90°	25.3	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°	507.4	27.4
0°-40°	825.8	44.5
0°-60°	1455.5	78.5
0°-90°	1855.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1855.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	662	662	662	662	662	
5°	660	658	655	660	659	63
15°	626	627	628	636	636	177
25°	567	569	577	590	593	261
35°	486	492	508	527	532	304
45°	391	404	428	452	457	302
55°	292	308	340	365	371	262
65°	193	213	246	266	271	192
75°	97	120	146	144	138	103
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°	662.2	662.2	662.2	662.2	662.2
2.5°	663.1	661.3	658.5	663.1	662.2
5°	660.4	658.5	654.8	660.4	659.4
7.5°	654.8	653.0	651.2	656.7	655.8
10°	647.5	646.6	645.6	652.1	651.2
12.5°	638.3	638.3	637.4	644.7	644.7
15°	626.3	627.3	628.2	636.5	636.5
17.5°	615.3	614.4	617.1	626.3	627.3
20°	599.7	601.5	605.2	616.2	617.1
22.5°	584.0	585.9	592.3	603.3	606.1
25°	566.6	569.3	576.7	590.5	593.2
27.5°	548.2	551.8	562.0	576.7	579.4
30°	527.9	533.4	544.5	561.0	563.8
32.5°	507.7	513.2	527.0	543.6	547.2
35°	485.6	492.1	507.7	527.0	531.6
37.5°	462.6	470.9	489.3	508.6	514.1
40°	439.6	448.8	469.1	489.3	495.7
42.5°	416.6	425.8	447.9	470.9	477.3
45°	390.9	403.8	427.7	451.6	457.1
47.5°	366.1	379.8	406.5	430.4	437.8
50°	342.1	355.9	384.4	409.3	416.6
52.5°	317.3	332.0	362.4	388.1	394.6
55°	292.5	308.1	340.3	365.1	370.7
57.5°	267.6	284.2	317.3	341.2	347.7
60°	242.8	260.3	292.5	316.4	321.0
62.5°	218.0	236.4	269.5	290.6	295.2
65°	193.1	213.4	246.5	265.8	271.3
67.5°	169.2	189.5	221.7	240.0	244.6
70°	147.2	165.6	197.7	211.5	213.4
72.5°	119.6	142.6	173.8	181.2	176.6
75°	96.6	119.6	146.2	143.5	138.0
77.5°	73.6	96.6	114.0	104.8	97.5
80°	52.4	75.4	79.1	65.3	61.6
82.5°	34.0	52.4	44.1	34.0	27.6
85°	17.5	24.8	13.8	11.0	9.2
87.5°	5.5	3.7	1.8	1.8	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)