

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: P307824

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-CP187-W2A-U-5700K**

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: P307824
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-5700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 5700K 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: 1981.0 lumens
Efficiency: N/A
Efficacy: 116.5 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

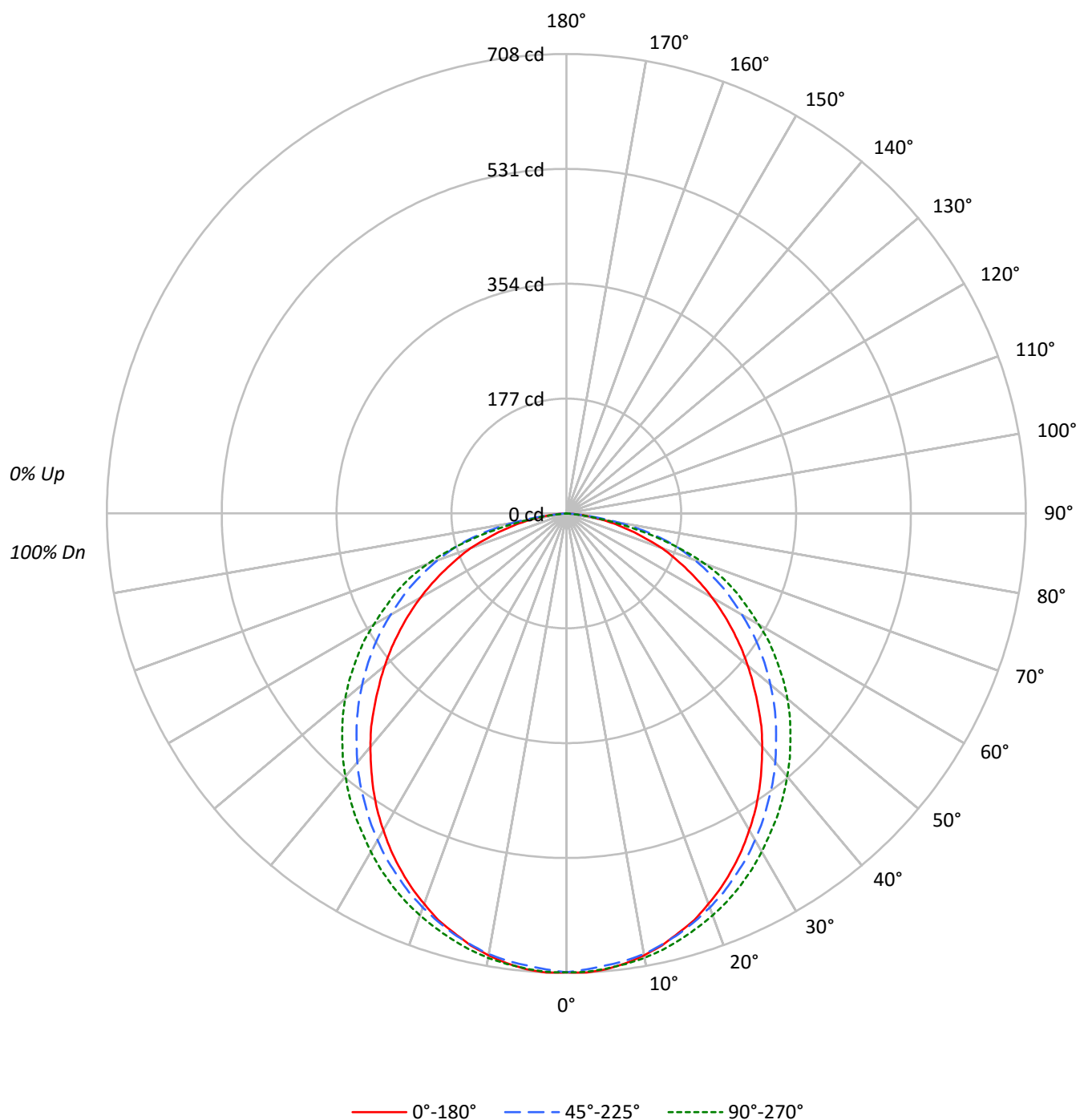
Input Watts (W): 17
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1903	1903	1903
5°	1905	1889	1902
10°	1890	1884	1900
15°	1863	1869	1894
20°	1834	1851	1887
25°	1796	1828	1881
30°	1752	1807	1871
35°	1704	1781	1865
40°	1649	1760	1860
45°	1588	1738	1858
50°	1530	1719	1863
55°	1465	1705	1857
60°	1396	1681	1845
65°	1314	1676	1845
70°	1237	1662	1793
75°	1072	1624	1531
80°	868	1309	1020
85°	577	454	303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	3.4
10°-20°	190.0	9.6
20°-30°	285.0	14.4
30°-40°	340.0	17.2
40°-50°	351.5	17.7
50°-60°	320.9	16.2
60°-70°	252.6	12.7
70°-80°	147.0	7.4
80°-90°	27.1	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°	541.8	27.4
0°-40°	881.9	44.5
0°-60°	1554.3	78.5
0°-90°	1981.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1981.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	707	707	707	707	707	
5°	705	703	699	705	704	67
15°	669	670	671	680	680	189
25°	605	608	616	631	634	279
35°	519	526	542	563	568	324
45°	417	431	457	482	488	322
55°	312	329	363	390	396	279
65°	206	228	263	284	290	205
75°	103	128	156	153	147	110
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°	707.2	707.2	707.2	707.2	707.2
2.5°	708.2	706.2	703.3	708.2	707.2
5°	705.2	703.3	699.3	705.2	704.2
7.5°	699.3	697.4	695.4	701.3	700.3
10°	691.5	690.5	689.5	696.4	695.4
12.5°	681.6	681.6	680.7	688.5	688.5
15°	668.9	669.9	670.8	679.7	679.7
17.5°	657.1	656.1	659.1	668.9	669.9
20°	640.4	642.4	646.3	658.1	659.1
22.5°	623.7	625.7	632.5	644.3	647.3
25°	605.0	608.0	615.8	630.6	633.5
27.5°	585.4	589.3	600.1	615.8	618.8
30°	563.8	569.7	581.5	599.1	602.1
32.5°	542.2	548.1	562.8	580.5	584.4
35°	518.6	525.5	542.2	562.8	567.7
37.5°	494.0	502.9	522.5	543.2	549.0
40°	469.5	479.3	500.9	522.5	529.4
42.5°	444.9	454.8	478.3	502.9	509.8
45°	417.4	431.2	456.7	482.3	488.2
47.5°	390.9	405.6	434.1	459.7	467.5
50°	365.4	380.1	410.6	437.1	444.9
52.5°	338.9	354.6	387.0	414.5	421.4
55°	312.3	329.0	363.4	389.9	395.8
57.5°	285.8	303.5	338.9	364.4	371.3
60°	259.3	278.0	312.3	337.9	342.8
62.5°	232.8	252.4	287.8	310.4	315.3
65°	206.3	227.9	263.2	283.9	289.7
67.5°	180.7	202.3	236.7	256.4	261.3
70°	157.2	176.8	211.2	225.9	227.9
72.5°	127.7	152.2	185.6	193.5	188.6
75°	103.1	127.7	156.2	153.2	147.3
77.5°	78.6	103.1	121.8	112.0	104.1
80°	56.0	80.5	84.5	69.7	65.8
82.5°	36.3	56.0	47.1	36.3	29.5
85°	18.7	26.5	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)