

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: P307810

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-CP125-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: P307810
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-CP125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.125" 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: 1937.0 lumens
Efficiency: N/A
Efficacy: 116.7 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

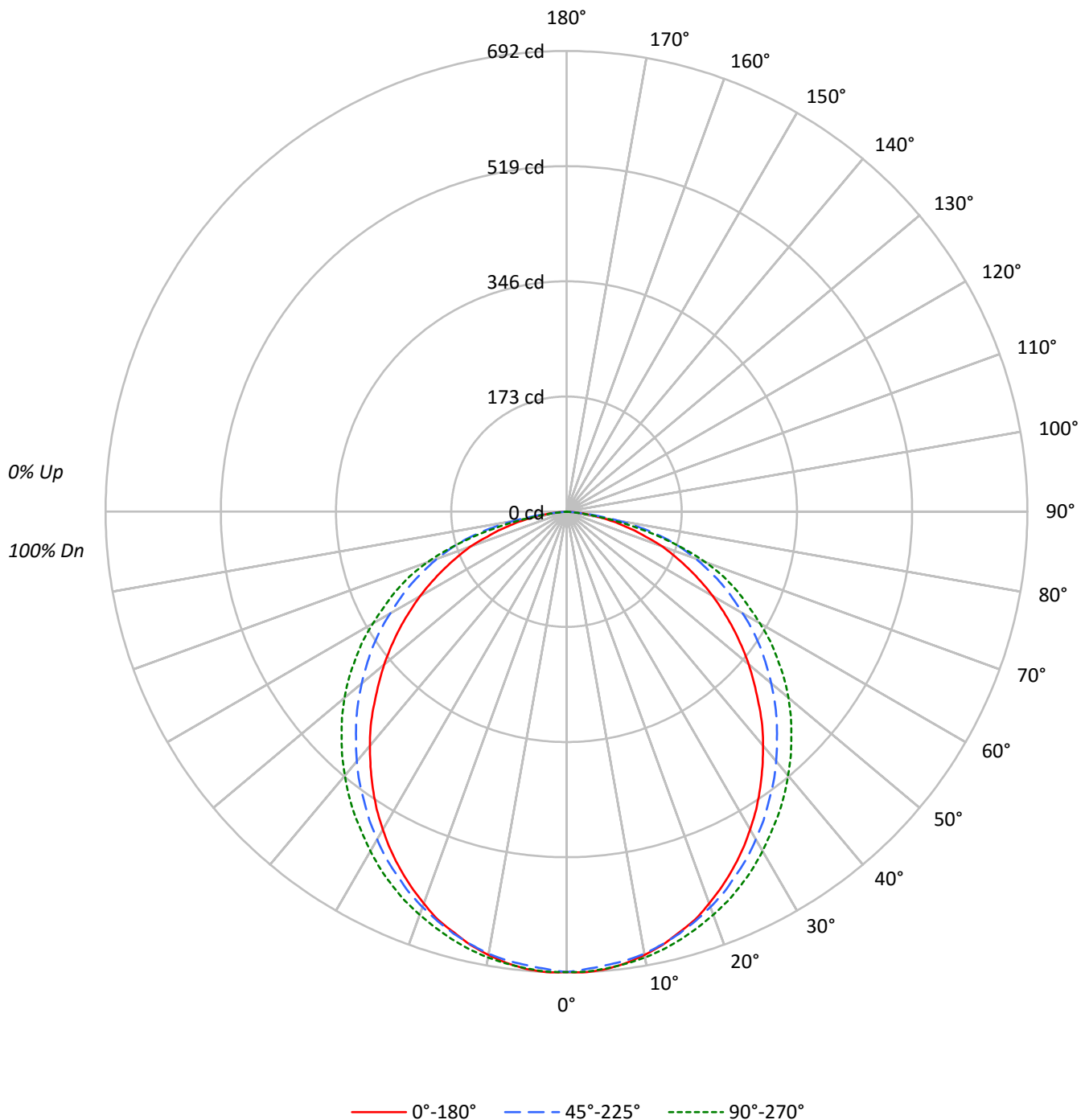
Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1861	1861	1861
5°	1863	1847	1860
10°	1847	1842	1858
15°	1822	1827	1852
20°	1793	1810	1845
25°	1757	1788	1839
30°	1713	1766	1829
35°	1666	1741	1824
40°	1613	1721	1818
45°	1553	1700	1816
50°	1496	1680	1822
55°	1433	1667	1816
60°	1364	1644	1804
65°	1284	1639	1804
70°	1209	1625	1753
75°	1048	1588	1498
80°	848	1280	996
85°	562	445	296



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.3	3.4
10°-20°	185.8	9.6
20°-30°	278.7	14.4
30°-40°	332.5	17.2
40°-50°	343.7	17.7
50°-60°	313.8	16.2
60°-70°	247.0	12.7
70°-80°	143.8	7.4
80°-90°	26.5	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°	529.8	27.4
0°-40°	862.3	44.5
0°-60°	1519.8	78.5
0°-90°	1937.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1937.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	692	692	692	692	692	
5°	690	688	684	690	689	65
15°	654	655	656	665	665	185
25°	592	594	602	617	619	272
35°	507	514	530	550	555	317
45°	408	422	447	472	477	315
55°	305	322	355	381	387	273
65°	202	223	257	278	283	200
75°	101	125	153	150	144	107
85°	18	26	14	12	10	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	691.5	691.5	691.5	691.5	691.5
2.5°	692.4	690.5	687.6	692.4	691.5
5°	689.6	687.6	683.8	689.6	688.6
7.5°	683.8	681.9	680.0	685.7	684.8
10°	676.1	675.2	674.2	680.9	680.0
12.5°	666.5	666.5	665.5	673.2	673.2
15°	654.0	655.0	655.9	664.6	664.6
17.5°	642.5	641.5	644.4	654.0	655.0
20°	626.2	628.1	631.9	643.5	644.4
22.5°	609.8	611.8	618.5	630.0	632.9
25°	591.6	594.5	602.2	616.6	619.4
27.5°	572.4	576.2	586.8	602.2	605.0
30°	551.3	557.0	568.5	585.8	588.7
32.5°	530.1	535.9	550.3	567.6	571.4
35°	507.1	513.8	530.1	550.3	555.1
37.5°	483.1	491.7	510.9	531.1	536.9
40°	459.1	468.7	489.8	510.9	517.6
42.5°	435.1	444.7	467.7	491.7	498.4
45°	408.2	421.6	446.6	471.5	477.3
47.5°	382.2	396.6	424.5	449.5	457.1
50°	357.3	371.7	401.4	427.4	435.1
52.5°	331.3	346.7	378.4	405.3	412.0
55°	305.4	321.7	355.3	381.3	387.0
57.5°	279.5	296.8	331.3	356.3	363.0
60°	253.5	271.8	305.4	330.4	335.2
62.5°	227.6	246.8	281.4	303.5	308.3
65°	201.7	222.8	257.4	277.6	283.3
67.5°	176.7	197.8	231.5	250.7	255.5
70°	153.7	172.9	206.5	220.9	222.8
72.5°	124.8	148.9	181.5	189.2	184.4
75°	100.8	124.8	152.7	149.8	144.1
77.5°	76.8	100.8	119.1	109.5	101.8
80°	54.7	78.8	82.6	68.2	64.3
82.5°	35.5	54.7	46.1	35.5	28.8
85°	18.2	25.9	14.4	11.5	9.6
87.5°	5.8	3.8	1.9	1.9	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)