

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: P307829

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-CP250-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: P307829
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-CP250-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" 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: 1880.0 lumens
Efficiency: N/A
Efficacy: 112.6 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

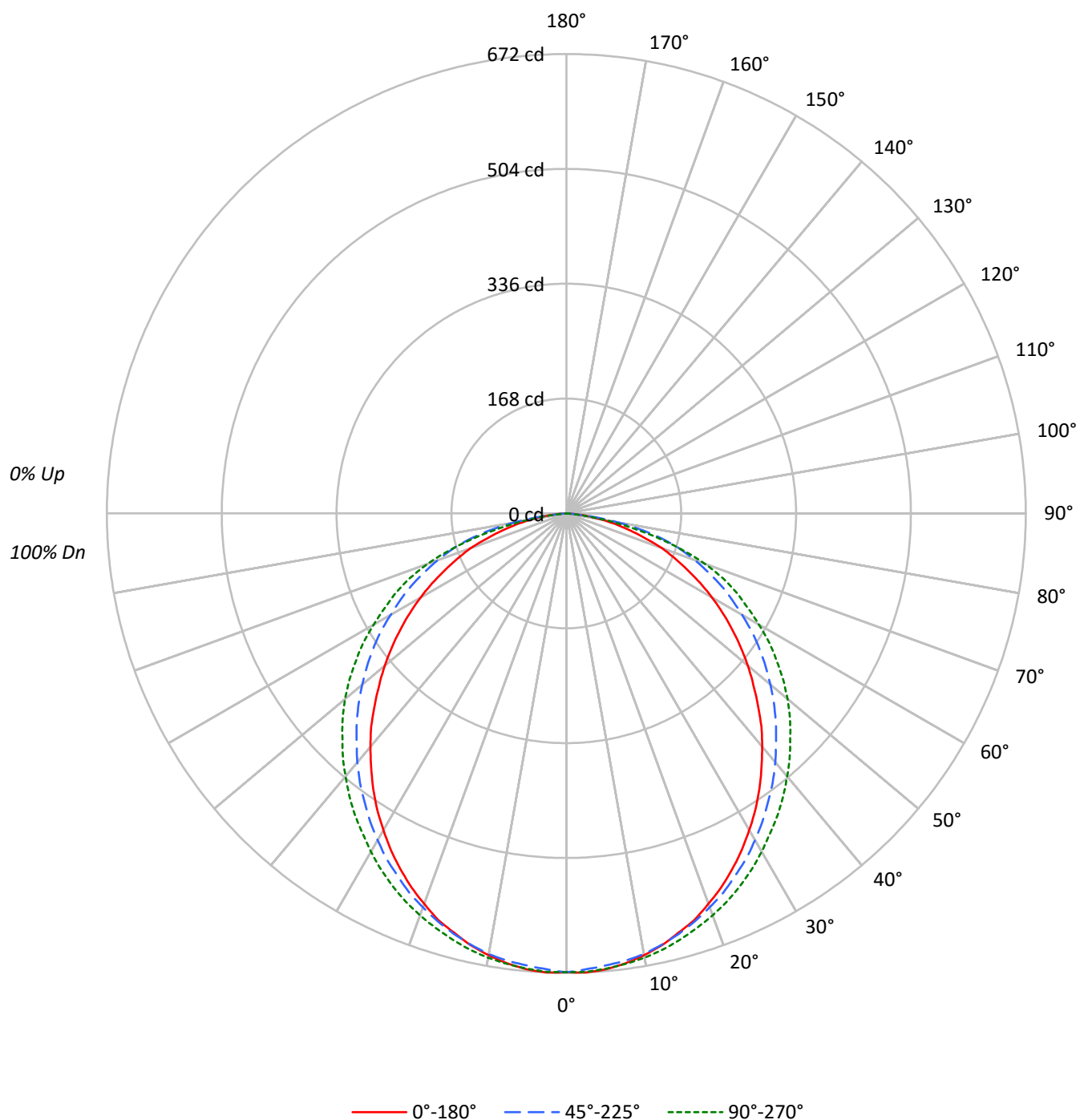
Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		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°	1806	1806	1806
5°	1808	1793	1805
10°	1793	1788	1803
15°	1768	1774	1797
20°	1740	1756	1791
25°	1705	1735	1785
30°	1662	1715	1775
35°	1617	1690	1770
40°	1565	1670	1765
45°	1508	1649	1763
50°	1451	1631	1768
55°	1391	1618	1762
60°	1324	1595	1751
65°	1246	1591	1751
70°	1173	1577	1702
75°	1018	1541	1454
80°	823	1243	969
85°	546	432	287



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.4	3.4
10°-20°	180.3	9.6
20°-30°	270.5	14.4
30°-40°	322.7	17.2
40°-50°	333.6	17.7
50°-60°	304.6	16.2
60°-70°	239.7	12.7
70°-80°	139.5	7.4
80°-90°	25.7	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°	514.2	27.4
0°-40°	836.9	44.5
0°-60°	1475.1	78.5
0°-90°	1880.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1880.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	671	671	671	671	671	
5°	669	667	664	669	668	63
15°	635	636	637	645	645	179
25°	574	577	584	598	601	264
35°	492	499	514	534	539	308
45°	396	409	433	458	463	306
55°	296	312	345	370	376	265
65°	196	216	250	269	275	194
75°	98	121	148	145	140	104
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°	671.1	671.1	671.1	671.1	671.1
2.5°	672.1	670.2	667.4	672.1	671.1
5°	669.3	667.4	663.7	669.3	668.3
7.5°	663.7	661.8	659.9	665.5	664.6
10°	656.2	655.3	654.4	660.9	659.9
12.5°	646.9	646.9	646.0	653.4	653.4
15°	634.8	635.7	636.6	645.0	645.0
17.5°	623.6	622.7	625.5	634.8	635.7
20°	607.7	609.6	613.3	624.5	625.5
22.5°	591.9	593.8	600.3	611.5	614.3
25°	574.2	577.0	584.4	598.4	601.2
27.5°	555.5	559.3	569.5	584.4	587.2
30°	535.0	540.6	551.8	568.6	571.4
32.5°	514.5	520.1	534.1	550.9	554.6
35°	492.2	498.7	514.5	534.1	538.8
37.5°	468.9	477.2	495.9	515.5	521.1
40°	445.6	454.9	475.4	495.9	502.4
42.5°	422.3	431.6	453.9	477.2	483.8
45°	396.2	409.2	433.4	457.7	463.3
47.5°	371.0	385.0	412.0	436.2	443.7
50°	346.7	360.7	389.6	414.8	422.3
52.5°	321.6	336.5	367.3	393.4	399.9
55°	296.4	312.3	344.9	370.1	375.6
57.5°	271.2	288.0	321.6	345.8	352.3
60°	246.1	263.8	296.4	320.7	325.3
62.5°	220.9	239.6	273.1	294.6	299.2
65°	195.7	216.3	249.8	269.4	275.0
67.5°	171.5	192.0	224.6	243.3	247.9
70°	149.1	167.8	200.4	214.4	216.3
72.5°	121.2	144.5	176.2	183.6	179.0
75°	97.9	121.2	148.2	145.4	139.8
77.5°	74.6	97.9	115.6	106.3	98.8
80°	53.1	76.4	80.2	66.2	62.5
82.5°	34.5	53.1	44.7	34.5	28.0
85°	17.7	25.2	14.0	11.2	9.3
87.5°	5.6	3.7	1.9	1.9	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)