

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: P307102

Luminaire Tested: **14FCZ2-29-UNV-L82765-HRP-CP187-W2A-U-5000K**

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: P307102
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L82765-HRP-CP187-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 5000K 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: 2048.0 lumens
Efficiency: N/A
Efficacy: 83.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

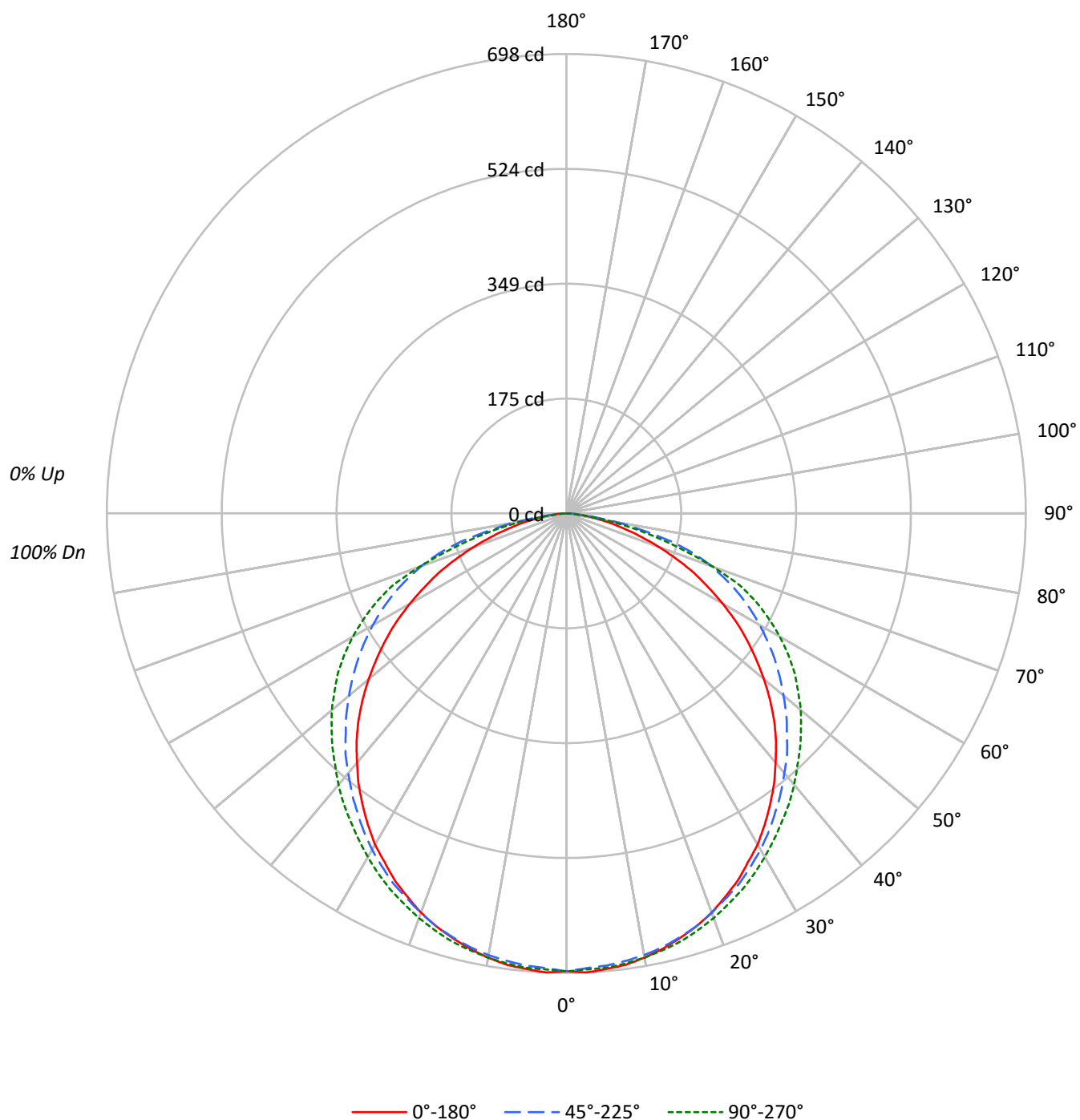
Input Watts (W): 24.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P307102

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-HRP-CP187-W2A-U-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P307102

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-HRP-CP187-W2A-U-5000K

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		93	91	88		84
2	99	90	83	78	96	88	82	77	85	79	75		82	77	73		69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	69	56	47	40	68	55	46	40	53	45	40		51	45	39		37
7	64	51	42	36	63	50	41	35	48	41	35		47	40	35		33
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	38	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1872	1872	1872
5°	1877	1863	1872
10°	1872	1862	1872
15°	1860	1857	1875
20°	1848	1850	1874
25°	1828	1843	1874
30°	1805	1833	1873
35°	1773	1819	1876
40°	1737	1810	1891
45°	1701	1804	1912
50°	1642	1804	1947
55°	1571	1813	1988
60°	1476	1827	2014
65°	1361	1845	2025
70°	1186	1850	1865
75°	977	1721	1507
80°	769	1238	1007
85°	596	479	238



TEST NUMBER: P307102

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-HRP-CP187-W2A-U-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.8	3.2
10°-20°	188.9	9.2
20°-30°	286.9	14.0
30°-40°	347.7	17.0
40°-50°	366.3	17.9
50°-60°	342.0	16.7
60°-70°	273.3	13.3
70°-80°	150.4	7.3
80°-90°	26.6	1.3
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°	541.7	26.5
0°-40°	889.4	43.4
0°-60°	1597.7	78.0
0°-90°	2048.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2048.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	696	696	696	696	696	
5°	695	693	690	694	693	66
15°	668	668	666	673	673	188
25°	616	617	621	630	631	283
35°	540	545	554	568	571	338
45°	447	455	474	495	502	344
55°	335	352	386	413	424	299
65°	214	241	290	314	318	210
75°	94	135	166	149	145	101
85°	19	24	16	10	8	24
90°	0	0	0	0	0	



TEST NUMBER: P307102

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-HRP-CP187-W2A-U-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	695.5	695.5	695.5	695.5	695.5
2.5°	698.1	696.2	691.6	695.5	693.6
5°	694.9	692.9	689.7	694.2	692.9
7.5°	691.6	689.1	685.9	691.0	689.7
10°	685.2	683.3	681.3	685.9	685.2
12.5°	677.5	676.8	674.9	680.1	679.4
15°	667.8	667.8	666.5	673.0	673.0
17.5°	657.5	656.9	657.5	664.6	664.0
20°	645.3	645.3	645.9	654.3	654.3
22.5°	630.5	631.1	633.0	643.3	642.7
25°	615.7	616.9	620.8	629.8	631.1
27.5°	597.6	600.8	605.4	616.3	617.6
30°	580.9	582.8	589.9	600.2	602.8
32.5°	560.9	564.8	572.5	584.1	587.3
35°	539.7	544.8	553.8	568.0	571.2
37.5°	518.4	522.9	535.2	550.0	555.8
40°	494.6	502.3	515.2	531.9	538.4
42.5°	471.4	479.1	496.5	513.9	519.7
45°	446.9	455.3	474.0	495.2	502.3
47.5°	419.9	429.5	453.4	475.9	483.6
50°	392.2	404.4	430.8	455.9	465.0
52.5°	363.2	378.7	408.9	435.3	443.7
55°	334.9	351.6	386.4	413.4	423.7
57.5°	305.9	323.9	363.2	394.1	399.9
60°	274.3	296.2	339.4	366.4	374.2
62.5°	243.4	268.5	314.9	340.7	347.1
65°	213.8	240.9	289.8	313.6	318.1
67.5°	181.6	213.8	262.1	284.0	285.3
70°	150.7	188.0	235.1	245.4	237.0
72.5°	120.4	160.4	203.5	195.1	188.0
75°	94.0	134.6	165.5	148.8	144.9
77.5°	69.6	110.1	118.5	109.5	102.4
80°	49.6	86.9	79.9	68.3	65.0
82.5°	34.1	54.7	43.8	34.1	29.6
85°	19.3	24.5	15.5	9.7	7.7
87.5°	8.4	5.8	3.2	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)