

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: P307644

Luminaire Tested: **14FCZ2-29-UNV-L82765-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: P307644
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
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-CP187-W2A-U-5700K
Description: 1'X4' TROFFER LED MODULE,RIBBED 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: 2733.0 lumens
Efficiency: N/A
Efficacy: 111.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

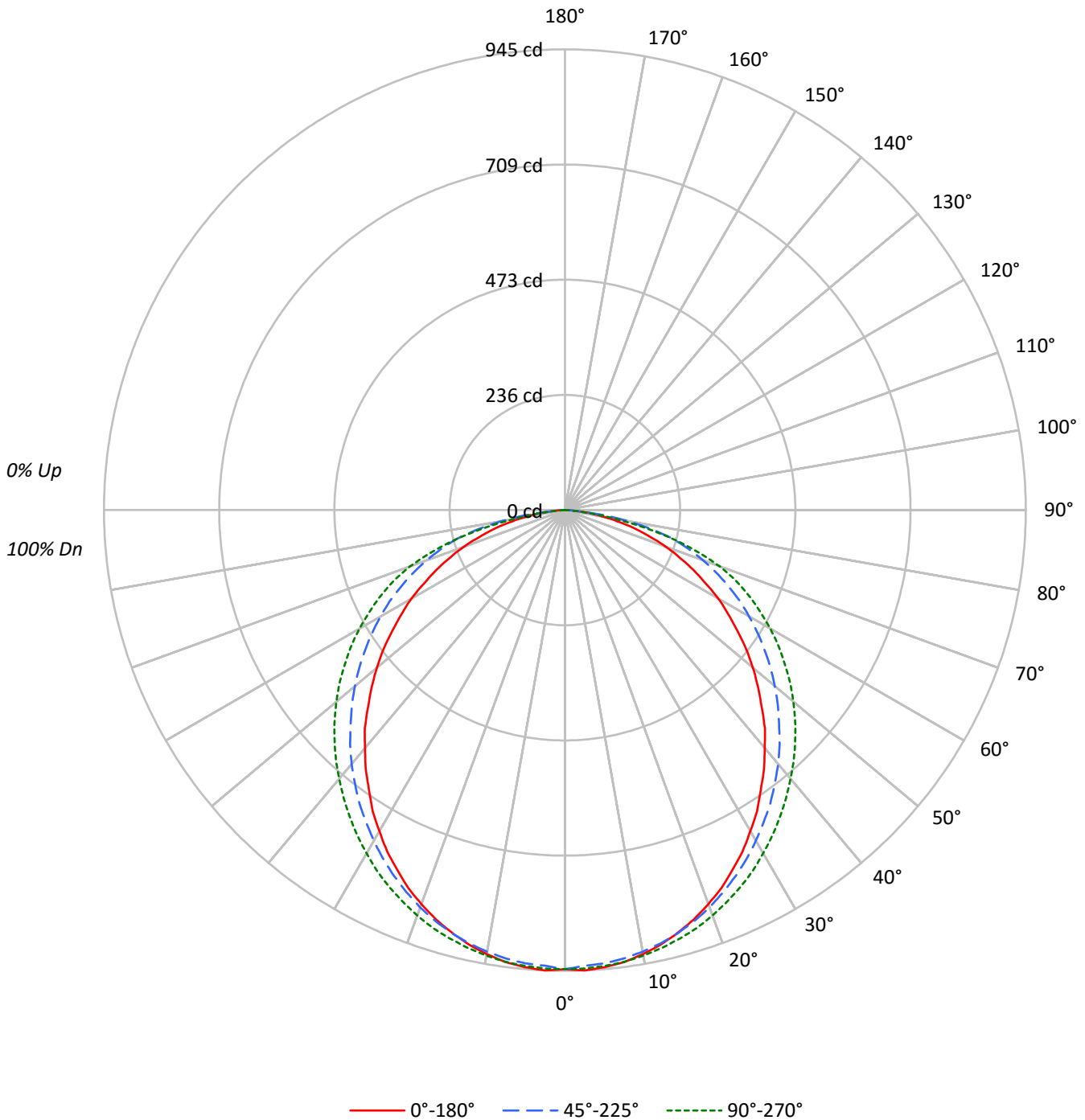
Input Watts (W): 24.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P307644

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-CP187-W2A-U-5700K

Luminous Intensity Polar Plot





TEST NUMBER: P307644

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-CP187-W2A-U-5700K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2534	2534	2534
5°	2542	2520	2535
10°	2526	2513	2536
15°	2499	2501	2535
20°	2462	2483	2534
25°	2416	2459	2532
30°	2363	2433	2526
35°	2300	2412	2525
40°	2239	2389	2528
45°	2171	2363	2542
50°	2107	2352	2559
55°	2027	2344	2582
60°	1955	2348	2617
65°	1855	2355	2658
70°	1740	2374	2656
75°	1577	2396	2402
80°	1294	2069	1709
85°	960	979	395



TEST NUMBER: P307644

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-CP187-W2A-U-5700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.1	3.3
10°-20°	254.5	9.3
20°-30°	383.4	14.0
30°-40°	460.1	16.8
40°-50°	479.5	17.5
50°-60°	443.9	16.2
60°-70°	358.7	13.1
70°-80°	218.7	8.0
80°-90°	45.1	1.7
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°	727.0	26.6
0°-40°	1187.0	43.4
0°-60°	2110.5	77.2
0°-90°	2733.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2733.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	942	942	942	942	942	
5°	941	938	933	940	938	89
15°	897	898	898	910	910	253
25°	814	818	828	849	853	375
35°	700	711	734	761	768	439
45°	570	588	621	656	668	441
55°	432	455	500	539	550	387
65°	291	320	370	407	417	288
75°	152	185	230	234	231	159
85°	31	46	32	18	13	38
90°	0	0	0	0	0	



TEST NUMBER: P307644

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-CP187-W2A-U-5700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	941.5	941.5	941.5	941.5	941.5
2.5°	945.2	942.1	935.4	942.1	940.9
5°	940.9	938.5	933.0	939.7	938.5
7.5°	934.8	932.4	927.5	935.4	934.2
10°	924.5	923.2	919.6	928.7	928.1
12.5°	912.3	911.7	909.8	920.2	919.6
15°	897.0	897.7	897.7	909.8	909.8
17.5°	880.0	881.2	883.6	897.0	898.9
20°	859.9	862.3	867.2	882.4	884.9
22.5°	839.1	841.0	848.3	866.6	869.0
25°	813.6	818.4	828.2	848.9	852.6
27.5°	789.2	793.4	806.8	828.2	834.3
30°	760.5	767.2	783.1	806.2	812.9
32.5°	733.1	740.4	758.7	785.5	791.6
35°	700.2	711.2	734.3	761.1	768.5
37.5°	670.3	680.7	706.9	736.2	744.7
40°	637.4	650.2	680.1	711.2	719.7
42.5°	607.0	619.2	651.5	683.1	694.7
45°	570.4	587.5	621.0	655.7	667.9
47.5°	536.9	553.9	592.3	629.5	640.5
50°	503.4	521.6	561.9	600.3	611.2
52.5°	468.6	488.1	531.4	569.8	582.6
55°	432.1	454.6	499.7	538.7	550.3
57.5°	397.3	420.5	468.6	508.2	519.8
60°	363.2	387.0	436.3	474.1	486.3
62.5°	325.4	353.5	404.6	441.8	451.0
65°	291.3	319.9	369.9	407.1	417.4
67.5°	255.3	286.4	336.4	370.5	380.3
70°	221.2	253.5	301.7	333.3	337.6
72.5°	184.6	217.6	266.3	286.4	286.4
75°	151.7	185.3	230.4	234.0	231.0
77.5°	115.8	153.0	182.2	174.9	167.6
80°	83.5	120.1	133.5	120.1	110.3
82.5°	56.1	87.1	80.4	64.0	56.7
85°	31.1	46.3	31.7	17.7	12.8
87.5°	11.6	10.4	3.0	3.0	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)