

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: P308586

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-RDP-CP187-W2A-U-4500K**

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: P308586
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-44HE-UNV-L82765-RDP-CP187-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET
Light Source: (168) 3000K 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: 2532.0 lumens
Efficiency: N/A
Efficacy: 66.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

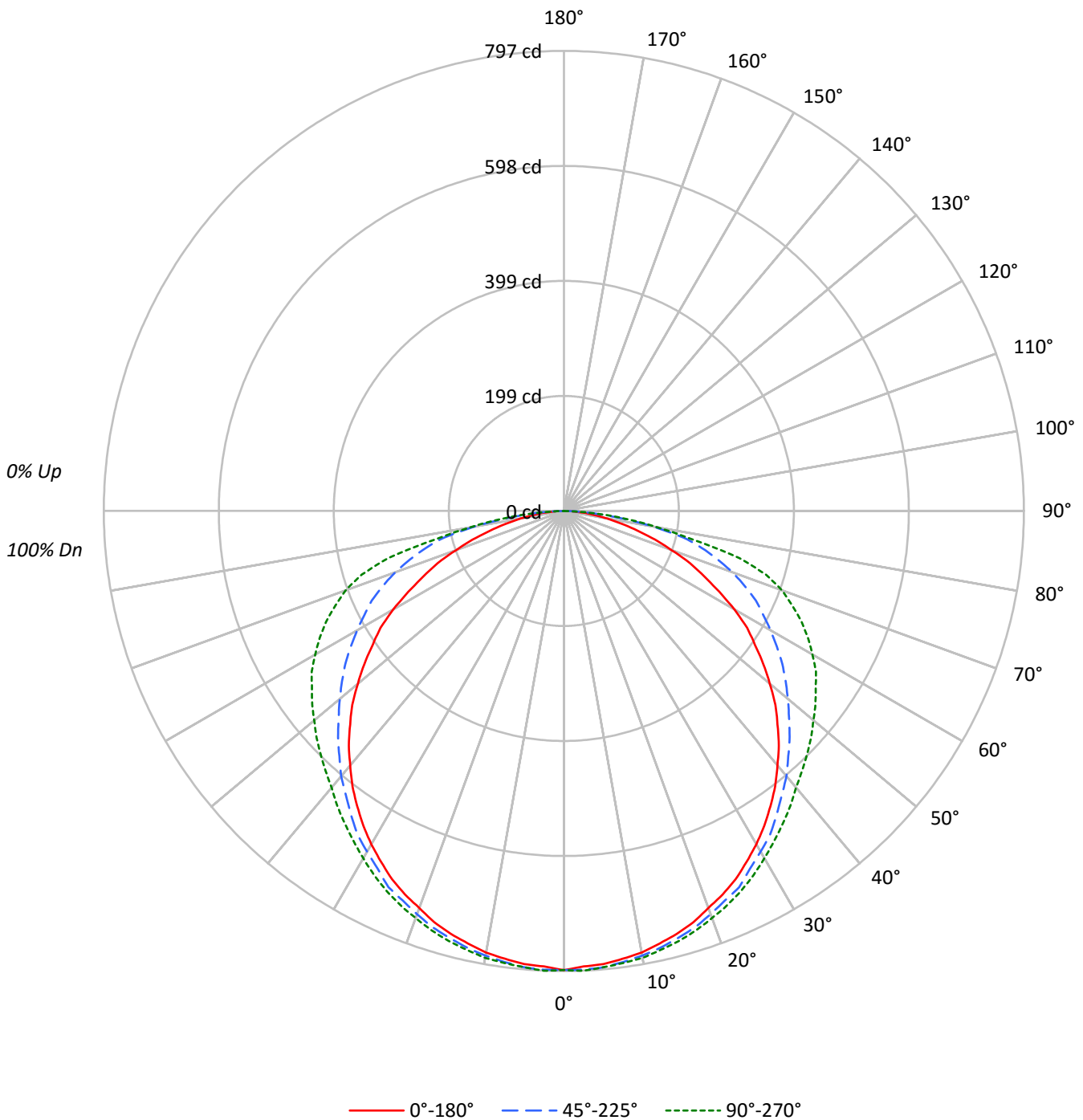
Input Watts (W): 37.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308586

CATALOG NUMBER: 22FCZ2-44HE-UNV-L82765-RDP-CP187-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P308586

CATALOG NUMBER: 22FCZ2-44HE-UNV-L82765-RDP-CP187-W2A-U-4500K

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	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2140	2140	2140
5°	2128	2143	2143
10°	2122	2138	2148
15°	2112	2133	2148
20°	2096	2128	2149
25°	2091	2135	2157
30°	2072	2118	2159
35°	2050	2111	2172
40°	2022	2107	2198
45°	1992	2105	2268
50°	1950	2121	2363
55°	1896	2167	2499
60°	1835	2225	2676
65°	1708	2336	2894
70°	1568	2448	3165
75°	1375	2575	3273
80°	1184	2453	2569
85°	1034	1782	1954



TEST NUMBER: P308586

CATALOG NUMBER: 22FCZ2-44HE-UNV-L82765-RDP-CP187-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.2	3.0
10°-20°	216.0	8.5
20°-30°	329.6	13.0
30°-40°	402.4	15.9
40°-50°	430.3	17.0
50°-60°	415.3	16.4
60°-70°	357.5	14.1
70°-80°	241.9	9.6
80°-90°	63.8	2.5
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°	620.8	24.5
0°-40°	1023.2	40.4
0°-60°	1868.8	73.8
0°-90°	2532.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2532.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	795	795	795	795	795	
5°	788	790	794	794	794	75
15°	758	760	766	769	771	214
25°	704	708	719	723	726	324
35°	624	630	643	656	661	390
45°	523	533	553	581	596	404
55°	404	417	462	508	533	362
65°	268	294	367	425	454	267
75°	132	175	248	298	315	142
85°	34	47	58	60	63	38
90°	0	0	0	0	0	



TEST NUMBER: P308586

CATALOG NUMBER: 22FCZ2-44HE-UNV-L82765-RDP-CP187-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	795.3	795.3	795.3	795.3	795.3
2.5°	789.8	791.6	795.3	795.3	797.2
5°	787.9	789.8	793.5	793.5	793.5
7.5°	782.3	784.2	787.9	789.8	789.8
10°	776.7	778.6	782.3	784.2	786.0
12.5°	767.4	769.3	774.9	778.6	778.6
15°	758.1	760.0	765.5	769.3	771.1
17.5°	746.9	750.6	756.2	760.0	761.8
20°	732.0	735.7	743.2	748.8	750.6
22.5°	719.0	722.7	730.2	735.7	739.5
25°	704.1	707.8	719.0	722.7	726.4
27.5°	685.4	689.2	698.5	705.9	711.5
30°	666.8	670.5	681.7	691.0	694.8
32.5°	646.3	651.9	665.0	672.4	678.0
35°	624.0	629.6	642.6	655.6	661.2
37.5°	601.6	607.2	620.3	637.0	644.5
40°	575.6	583.0	599.8	622.1	625.8
42.5°	551.3	560.7	575.6	601.6	610.9
45°	523.4	532.7	553.2	581.1	596.0
47.5°	497.3	506.6	529.0	562.5	581.1
50°	465.7	478.7	506.6	545.8	564.4
52.5°	435.9	447.0	484.3	527.1	549.5
55°	404.2	417.2	461.9	508.5	532.7
57.5°	376.3	387.4	437.7	489.9	517.8
60°	340.9	355.8	413.5	469.4	497.3
62.5°	303.6	326.0	389.3	447.0	476.8
65°	268.2	294.3	366.9	424.7	454.5
67.5°	236.6	264.5	339.0	400.5	428.4
70°	199.3	234.7	311.1	370.7	402.3
72.5°	165.8	204.9	279.4	339.0	366.9
75°	132.2	175.1	247.7	298.0	314.8
77.5°	102.4	143.4	212.3	227.2	229.1
80°	76.4	113.6	158.3	160.2	165.8
82.5°	52.2	80.1	102.4	111.8	113.6
85°	33.5	46.6	57.7	59.6	63.3
87.5°	14.9	16.8	20.5	18.6	18.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)