

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: P308596

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-RDP-CP250-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: P308596
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-CP250-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" 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: 2545.0 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

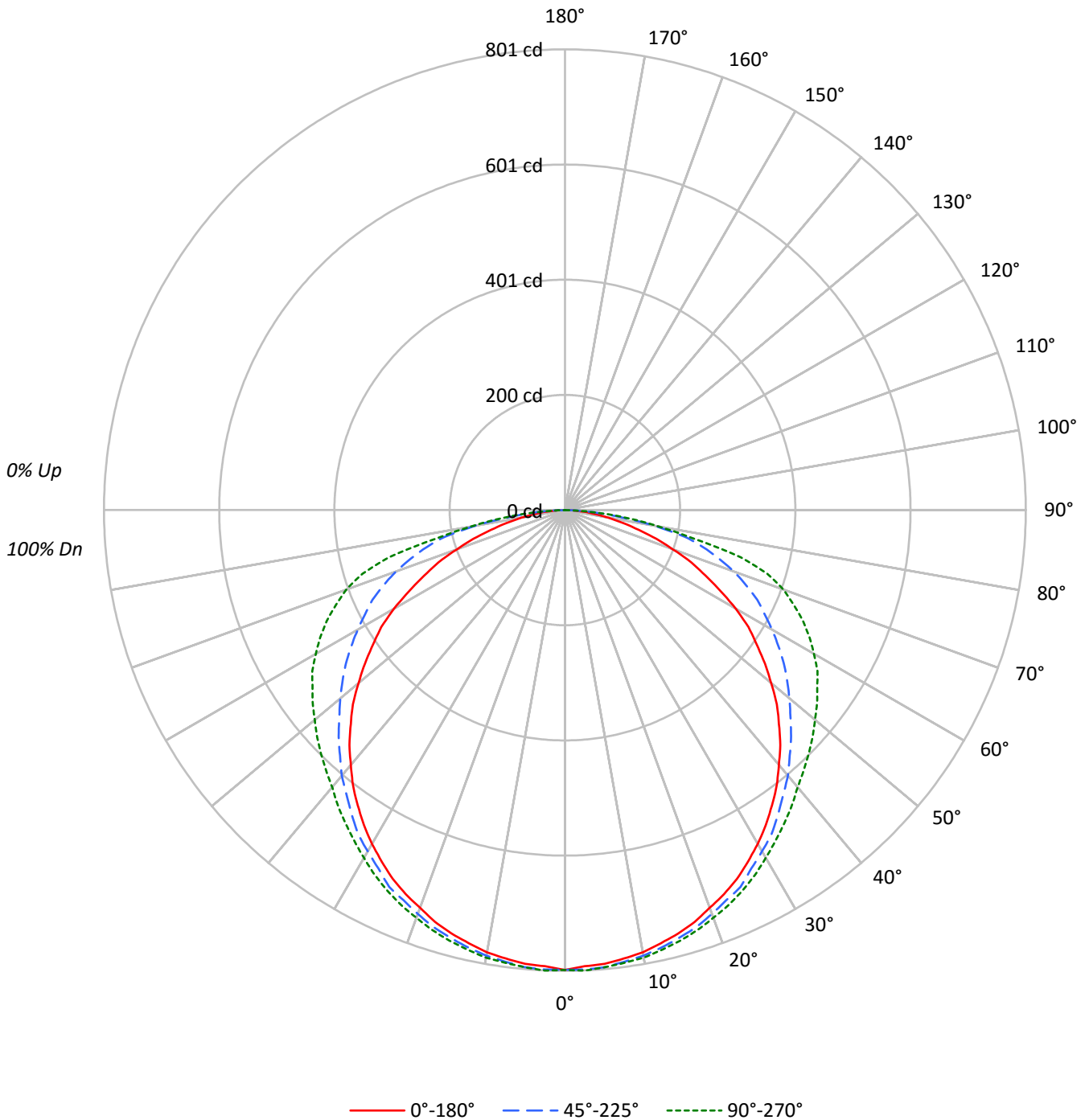
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	2151	2151	2151
5°	2139	2155	2155
10°	2133	2149	2159
15°	2123	2144	2159
20°	2107	2139	2161
25°	2101	2146	2168
30°	2082	2129	2170
35°	2060	2122	2183
40°	2032	2118	2210
45°	2002	2116	2280
50°	1959	2132	2375
55°	1906	2178	2512
60°	1844	2237	2690
65°	1717	2348	2909
70°	1576	2460	3182
75°	1382	2589	3290
80°	1190	2466	2582
85°	1041	1791	1967



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	3.0
10°-20°	217.1	8.5
20°-30°	331.3	13.0
30°-40°	404.5	15.9
40°-50°	432.5	17.0
50°-60°	417.4	16.4
60°-70°	359.3	14.1
70°-80°	243.1	9.6
80°-90°	64.1	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°	624.0	24.5
0°-40°	1028.5	40.4
0°-60°	1878.4	73.8
0°-90°	2545.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2545.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	799	799	799	799	799	
5°	792	794	798	798	798	75
15°	762	764	770	773	775	215
25°	708	711	723	726	730	326
35°	627	633	646	659	665	392
45°	526	535	556	584	599	406
55°	406	419	464	511	535	364
65°	270	296	369	427	457	268
75°	133	176	249	300	316	143
85°	34	47	58	60	64	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	799.4	799.4	799.4	799.4	799.4
2.5°	793.8	795.7	799.4	799.4	801.3
5°	791.9	793.8	797.6	797.6	797.6
7.5°	786.3	788.2	791.9	793.8	793.8
10°	780.7	782.6	786.3	788.2	790.1
12.5°	771.3	773.2	778.8	782.6	782.6
15°	762.0	763.9	769.5	773.2	775.1
17.5°	750.8	754.5	760.1	763.9	765.7
20°	735.8	739.5	747.0	752.6	754.5
22.5°	722.7	726.4	733.9	739.5	743.3
25°	707.7	711.4	722.7	726.4	730.2
27.5°	689.0	692.7	702.1	709.6	715.2
30°	670.2	674.0	685.2	694.6	698.3
32.5°	649.7	655.3	668.4	675.9	681.5
35°	627.2	632.8	645.9	659.0	664.6
37.5°	604.7	610.3	623.4	640.3	647.8
40°	578.5	586.0	602.8	625.3	629.1
42.5°	554.2	563.5	578.5	604.7	614.1
45°	526.1	535.4	556.0	584.1	599.1
47.5°	499.9	509.2	531.7	565.4	584.1
50°	468.0	481.2	509.2	548.6	567.3
52.5°	438.1	449.3	486.8	529.8	552.3
55°	406.3	419.4	464.3	511.1	535.4
57.5°	378.2	389.4	440.0	492.4	520.5
60°	342.6	357.6	415.6	471.8	499.9
62.5°	305.2	327.6	391.3	449.3	479.3
65°	269.6	295.8	368.8	426.9	456.8
67.5°	237.8	265.9	340.7	402.5	430.6
70°	200.3	235.9	312.7	372.6	404.4
72.5°	166.6	205.9	280.8	340.7	368.8
75°	132.9	176.0	249.0	299.6	316.4
77.5°	103.0	144.2	213.4	228.4	230.3
80°	76.8	114.2	159.1	161.0	166.6
82.5°	52.4	80.5	103.0	112.3	114.2
85°	33.7	46.8	58.0	59.9	63.7
87.5°	15.0	16.8	20.6	18.7	18.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)