

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: P308283

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-HRP-CP250-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: P308283
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-39HE-UNV-L82765-HRP-CP250-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 2666.0 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

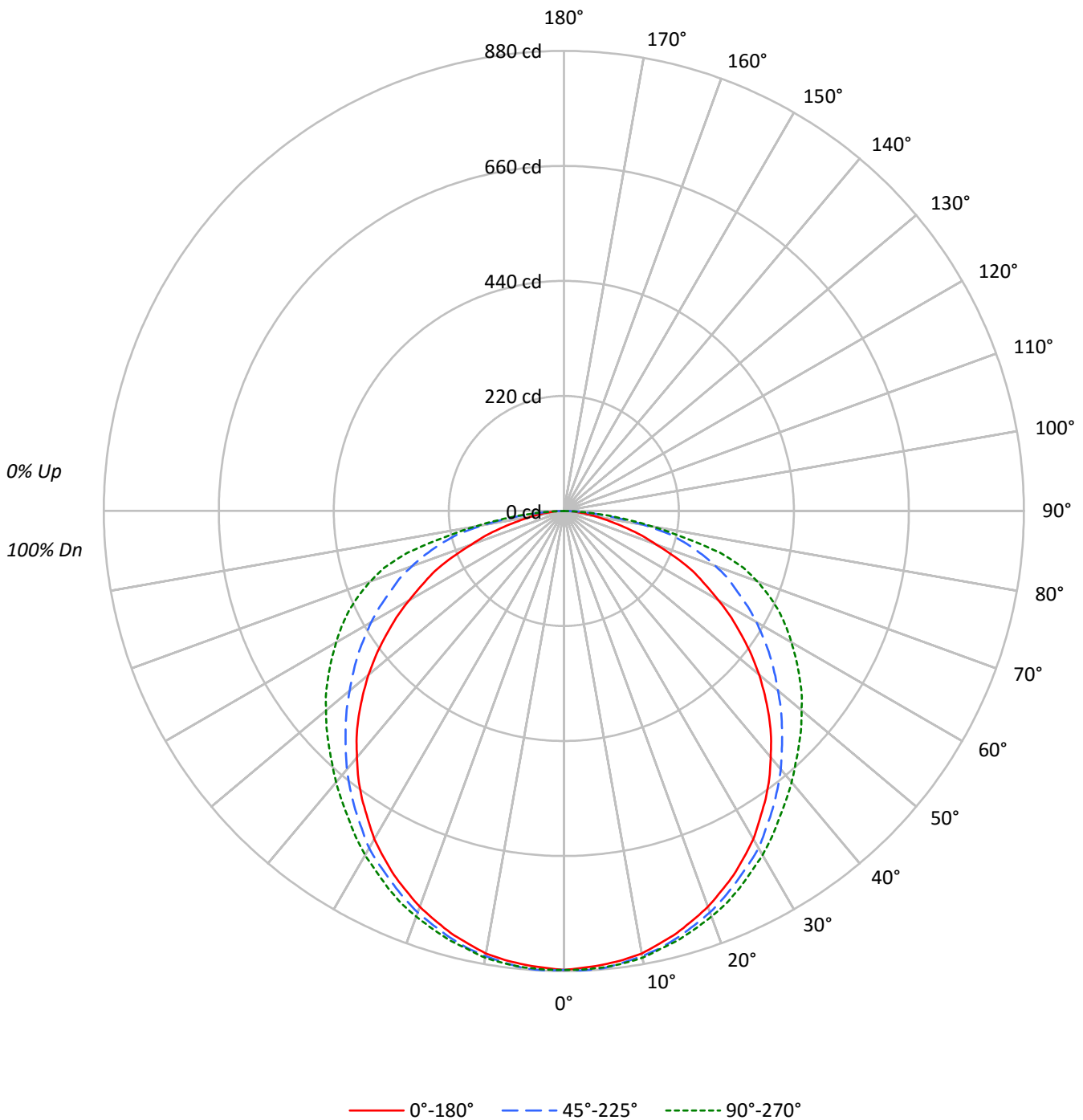
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308283

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-HRP-CP250-W2A-U-5700K

Luminous Intensity Polar Plot





TEST NUMBER: P308283

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-HRP-CP250-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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2362	2362	2362
5°	2353	2371	2367
10°	2348	2362	2371
15°	2328	2352	2366
20°	2307	2340	2365
25°	2282	2322	2362
30°	2252	2315	2362
35°	2210	2287	2359
40°	2162	2269	2381
45°	2112	2246	2419
50°	2042	2239	2485
55°	1949	2257	2580
60°	1837	2290	2706
65°	1734	2334	2891
70°	1482	2434	3096
75°	1241	2536	3217
80°	1017	2450	2684
85°	883	1819	1973



TEST NUMBER: P308283

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-HRP-CP250-W2A-U-5700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.2	3.1
10°-20°	238.0	8.9
20°-30°	360.7	13.5
30°-40°	435.5	16.3
40°-50°	457.6	17.2
50°-60°	430.6	16.2
60°-70°	359.0	13.5
70°-80°	237.9	8.9
80°-90°	63.4	2.4
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°	681.9	25.6
0°-40°	1117.4	41.9
0°-60°	2005.7	75.2
0°-90°	2666.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2666.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	878	878	878	878	878	
5°	871	873	878	878	876	83
15°	836	839	844	848	849	236
25°	769	774	782	792	796	354
35°	673	679	696	711	718	421
45°	555	563	590	621	636	427
55°	415	434	481	530	550	372
65°	272	296	367	427	454	265
75°	119	166	244	294	309	130
85°	29	44	59	64	64	33
90°	0	0	0	0	0	



TEST NUMBER: P308283

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-HRP-CP250-W2A-U-5700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	877.9	877.9	877.9	877.9	877.9
2.5°	874.5	876.2	879.6	879.6	877.9
5°	871.2	872.8	877.9	877.9	876.2
7.5°	866.1	867.8	871.2	874.5	872.8
10°	859.4	861.1	864.4	867.8	867.8
12.5°	847.6	849.3	856.0	857.7	857.7
15°	835.8	839.2	844.2	847.6	849.3
17.5°	820.7	824.1	830.8	837.5	837.5
20°	805.6	808.9	817.3	824.1	825.7
22.5°	787.1	792.1	800.5	808.9	812.3
25°	768.6	773.6	782.0	792.1	795.5
27.5°	746.7	751.8	763.5	775.3	777.0
30°	724.8	729.9	745.0	755.1	760.2
32.5°	697.9	704.7	719.8	734.9	740.0
35°	672.7	679.4	696.3	711.4	718.1
37.5°	645.8	652.5	671.0	689.5	697.9
40°	615.5	623.9	645.8	666.0	677.8
42.5°	586.9	595.3	617.2	644.1	655.9
45°	555.0	563.4	590.3	620.6	635.7
47.5°	521.3	531.4	563.4	600.4	615.5
50°	487.7	499.5	534.8	576.8	593.7
52.5°	452.4	467.5	507.9	553.3	573.5
55°	415.4	433.9	481.0	529.8	549.9
57.5°	380.1	396.9	452.4	504.5	526.4
60°	341.4	363.3	425.5	479.3	502.8
62.5°	304.4	327.9	396.9	454.1	479.3
65°	272.4	296.0	366.6	427.2	454.1
67.5°	230.4	262.4	341.4	398.6	425.5
70°	188.4	232.1	309.4	368.3	393.5
72.5°	156.4	198.4	277.5	336.4	359.9
75°	119.4	166.5	243.9	294.3	309.4
77.5°	89.1	137.9	208.5	233.8	235.4
80°	65.6	106.0	158.1	166.5	173.2
82.5°	45.4	74.0	102.6	112.7	116.0
85°	28.6	43.7	58.9	63.9	63.9
87.5°	15.1	16.8	20.2	20.2	20.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)