

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: P308279

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-HRP-CP250-W2A-U-4000K**

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: P308279
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-4000K
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: 2553.0 lumens
Efficiency: N/A
Efficacy: 77.8 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

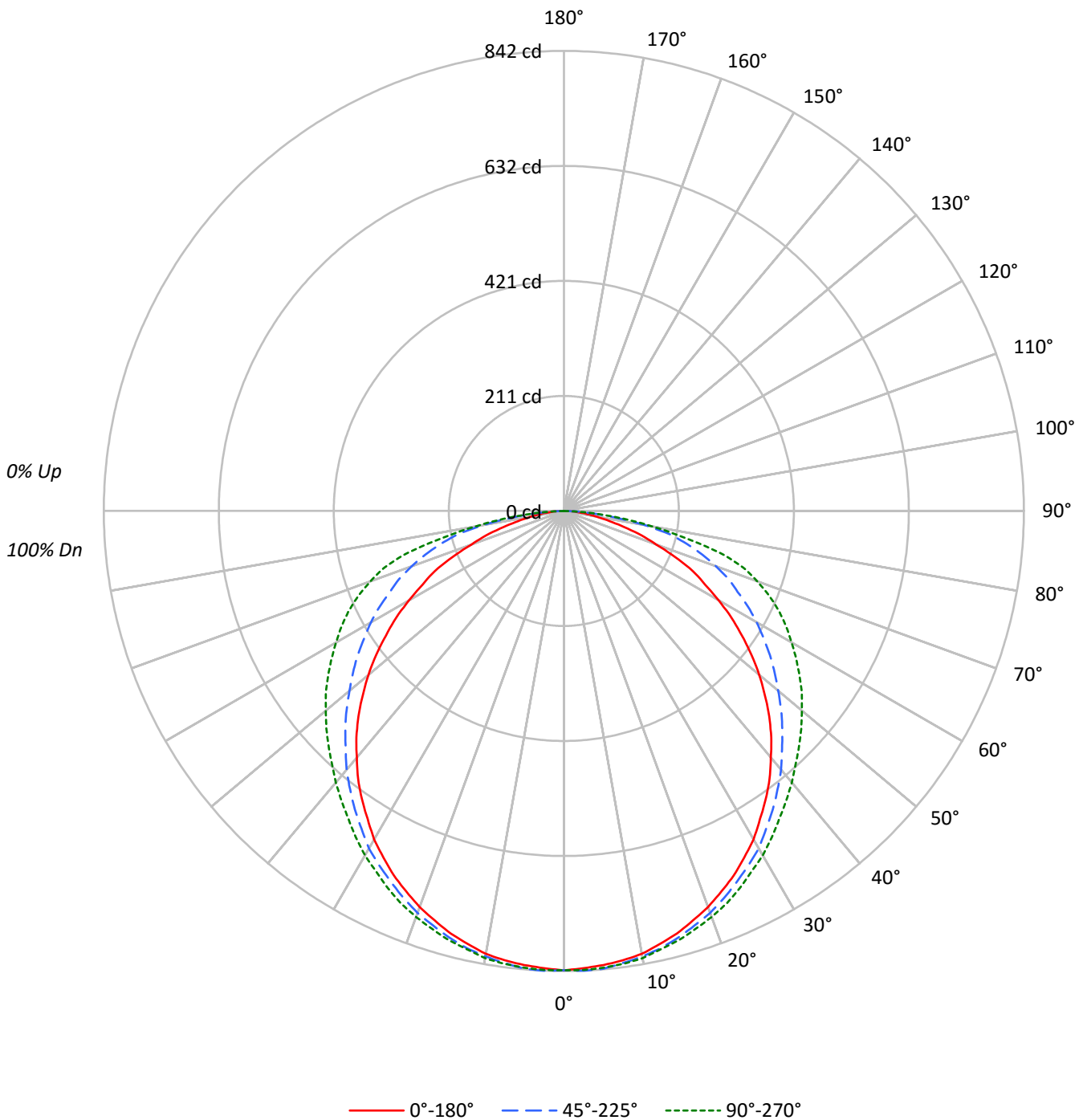
Input Watts (W): 32.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2262	2262	2262
5°	2253	2271	2267
10°	2249	2262	2271
15°	2230	2252	2266
20°	2209	2241	2264
25°	2185	2224	2262
30°	2157	2217	2262
35°	2116	2190	2259
40°	2070	2172	2280
45°	2023	2151	2317
50°	1955	2144	2380
55°	1866	2161	2471
60°	1759	2193	2591
65°	1661	2236	2769
70°	1419	2331	2965
75°	1188	2428	3081
80°	973	2346	2571
85°	846	1741	1890



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.7	3.1
10°-20°	227.9	8.9
20°-30°	345.4	13.5
30°-40°	417.1	16.3
40°-50°	438.2	17.2
50°-60°	412.3	16.2
60°-70°	343.8	13.5
70°-80°	227.8	8.9
80°-90°	60.7	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°	653.0	25.6
0°-40°	1070.1	41.9
0°-60°	1920.7	75.2
0°-90°	2553.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2553.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	841	841	841	841	841	
5°	834	836	841	841	839	79
15°	800	804	808	812	813	226
25°	736	741	749	758	762	339
35°	644	651	667	681	688	403
45°	532	540	565	594	609	409
55°	398	416	461	507	527	356
65°	261	283	351	409	435	254
75°	114	159	234	282	296	124
85°	27	42	56	61	61	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	840.7	840.7	840.7	840.7	840.7
2.5°	837.5	839.1	842.3	842.3	840.7
5°	834.2	835.8	840.7	840.7	839.1
7.5°	829.4	831.0	834.2	837.5	835.8
10°	823.0	824.6	827.8	831.0	831.0
12.5°	811.7	813.3	819.7	821.3	821.3
15°	800.4	803.6	808.5	811.7	813.3
17.5°	785.9	789.1	795.6	802.0	802.0
20°	771.4	774.6	782.7	789.1	790.7
22.5°	753.7	758.5	766.6	774.6	777.9
25°	736.0	740.8	748.9	758.5	761.8
27.5°	715.1	719.9	731.2	742.4	744.0
30°	694.1	699.0	713.4	723.1	727.9
32.5°	668.4	674.8	689.3	703.8	708.6
35°	644.2	650.6	666.7	681.2	687.7
37.5°	618.4	624.9	642.6	660.3	668.4
40°	589.4	597.5	618.4	637.8	649.0
42.5°	562.1	570.1	591.0	616.8	628.1
45°	531.5	539.5	565.3	594.3	608.8
47.5°	499.3	508.9	539.5	574.9	589.4
50°	467.0	478.3	512.1	552.4	568.5
52.5°	433.2	447.7	486.4	529.9	549.2
55°	397.8	415.5	460.6	507.3	526.6
57.5°	364.0	380.1	433.2	483.1	504.1
60°	326.9	347.9	407.5	459.0	481.5
62.5°	291.5	314.0	380.1	434.8	459.0
65°	260.9	283.4	351.1	409.1	434.8
67.5°	220.6	251.2	326.9	381.7	407.5
70°	180.4	222.2	296.3	352.7	376.9
72.5°	149.8	190.0	265.7	322.1	344.6
75°	114.3	159.4	233.5	281.8	296.3
77.5°	85.4	132.1	199.7	223.9	225.5
80°	62.8	101.5	151.4	159.4	165.9
82.5°	43.5	70.9	98.2	107.9	111.1
85°	27.4	41.9	56.4	61.2	61.2
87.5°	14.5	16.1	19.3	19.3	19.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)