

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: P308284

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-HRP-CP250-W2A-U-6500K**

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: P308284
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-6500K
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: 2673.0 lumens
Efficiency: N/A
Efficacy: 79.1 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

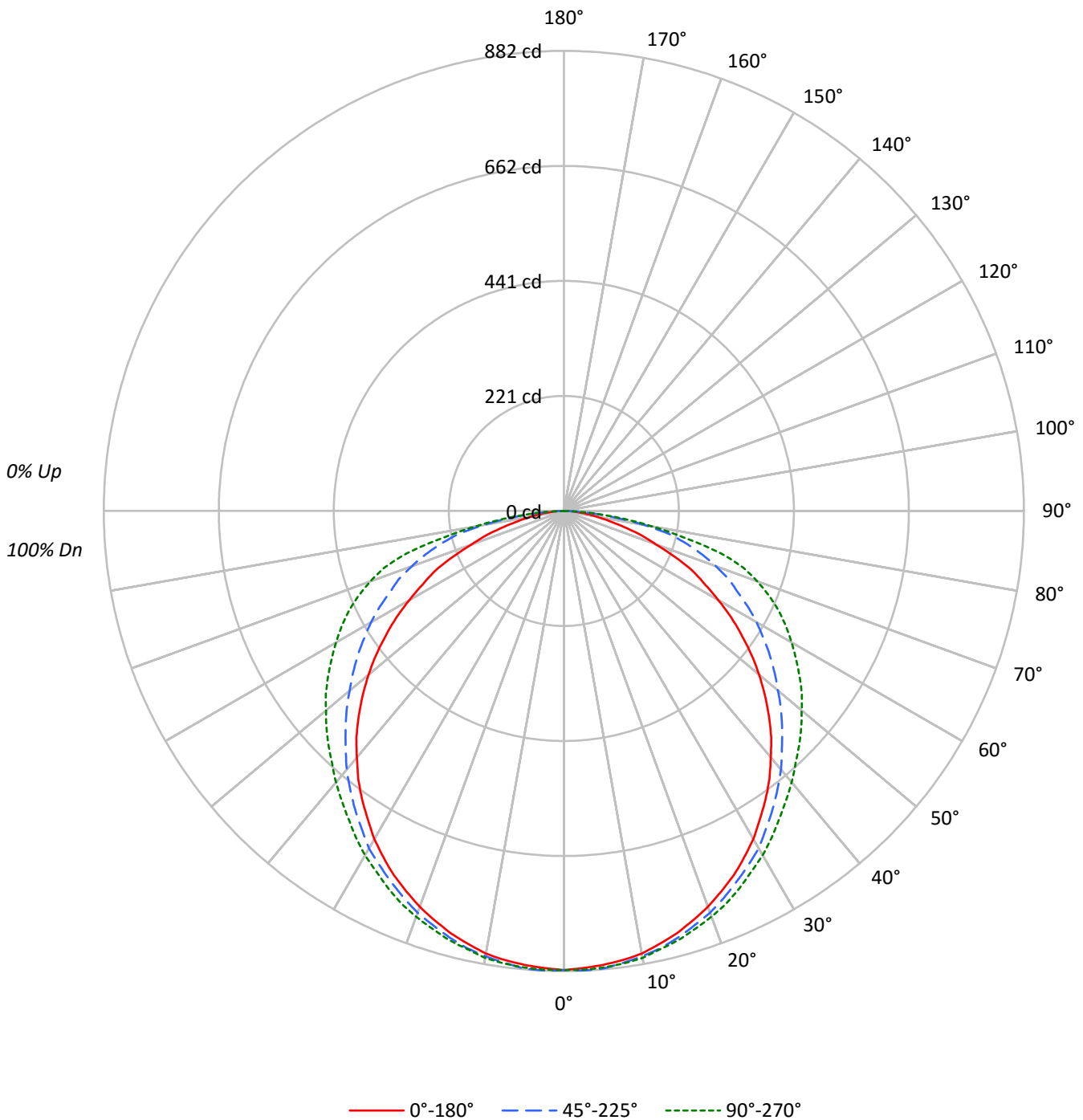
Input Watts (W): 33.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2369	2369	2369
5°	2359	2378	2373
10°	2354	2368	2378
15°	2335	2358	2372
20°	2313	2347	2371
25°	2288	2328	2368
30°	2258	2321	2368
35°	2216	2293	2365
40°	2168	2275	2387
45°	2117	2253	2426
50°	2047	2245	2492
55°	1954	2262	2587
60°	1842	2296	2714
65°	1740	2341	2899
70°	1486	2441	3105
75°	1245	2542	3226
80°	1020	2456	2692
85°	886	1822	1979



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.4	3.1
10°-20°	238.6	8.9
20°-30°	361.6	13.5
30°-40°	436.7	16.3
40°-50°	458.9	17.2
50°-60°	431.7	16.2
60°-70°	360.0	13.5
70°-80°	238.5	8.9
80°-90°	63.6	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°	683.7	25.6
0°-40°	1120.4	41.9
0°-60°	2010.9	75.2
0°-90°	2673.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2673.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	880	880	880	880	880	
5°	873	875	880	880	878	83
15°	838	841	846	850	852	236
25°	771	776	784	794	798	355
35°	674	681	698	713	720	422
45°	556	565	592	622	637	429
55°	416	435	482	531	551	373
65°	273	297	368	428	455	266
75°	120	167	244	295	310	130
85°	29	44	59	64	64	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	880.2	880.2	880.2	880.2	880.2
2.5°	876.8	878.5	881.9	881.9	880.2
5°	873.4	875.1	880.2	880.2	878.5
7.5°	868.4	870.1	873.4	876.8	875.1
10°	861.6	863.3	866.7	870.1	870.1
12.5°	849.8	851.5	858.3	860.0	860.0
15°	838.0	841.4	846.5	849.8	851.5
17.5°	822.9	826.2	833.0	839.7	839.7
20°	807.7	811.1	819.5	826.2	827.9
22.5°	789.1	794.2	802.6	811.1	814.4
25°	770.6	775.6	784.1	794.2	797.6
27.5°	748.7	753.7	765.5	777.3	779.0
30°	726.7	731.8	747.0	757.1	762.2
32.5°	699.8	706.5	721.7	736.9	741.9
35°	674.5	681.2	698.1	713.3	720.0
37.5°	647.5	654.2	672.8	691.3	699.8
40°	617.1	625.6	647.5	667.7	679.5
42.5°	588.5	596.9	618.8	645.8	657.6
45°	556.4	564.9	591.9	622.2	637.4
47.5°	522.7	532.8	564.9	602.0	617.1
50°	489.0	500.8	536.2	578.4	595.2
52.5°	453.6	468.8	509.2	554.8	575.0
55°	416.5	435.0	482.2	531.1	551.4
57.5°	381.1	397.9	453.6	505.9	527.8
60°	342.3	364.2	426.6	480.6	504.2
62.5°	305.2	328.8	397.9	455.3	480.6
65°	273.2	296.8	367.6	428.3	455.3
67.5°	231.0	263.0	342.3	399.6	426.6
70°	188.9	232.7	310.3	369.3	394.6
72.5°	156.8	199.0	278.2	337.2	360.8
75°	119.7	166.9	244.5	295.1	310.3
77.5°	89.4	138.3	209.1	234.4	236.1
80°	65.8	106.2	158.5	166.9	173.7
82.5°	45.5	74.2	102.9	113.0	116.3
85°	28.7	43.8	59.0	64.1	64.1
87.5°	15.2	16.9	20.2	20.2	20.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)