

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: P308241

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-HRP-CA08-W2A-U-3000K**

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: P308241
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-CA08-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC 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: 2602.0 lumens
Efficiency: N/A
Efficacy: 80.8 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

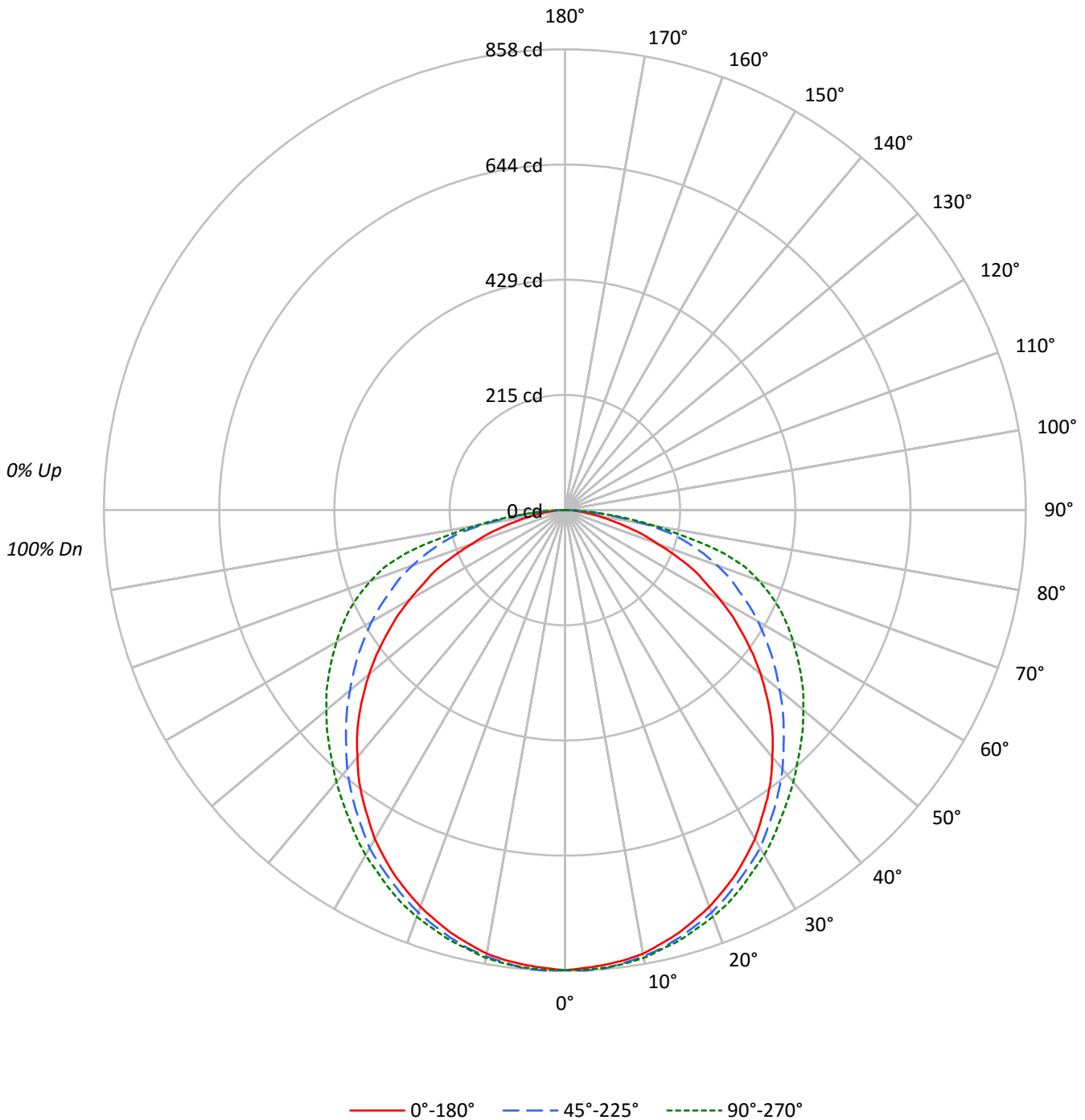
Input Watts (W): 32.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P308241

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-HRP-CA08-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P308241

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-HRP-CA08-W2A-U-3000K

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°	2306	2306	2306
5°	2297	2314	2310
10°	2292	2305	2314
15°	2273	2296	2309
20°	2251	2284	2308
25°	2227	2266	2305
30°	2198	2259	2305
35°	2157	2232	2303
40°	2111	2214	2324
45°	2062	2192	2361
50°	1993	2185	2426
55°	1902	2202	2518
60°	1793	2235	2641
65°	1693	2278	2822
70°	1446	2376	3022
75°	1211	2475	3140
80°	992	2391	2620
85°	861	1772	1927



TEST NUMBER: P308241

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-HRP-CA08-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.2	3.1
10°-20°	232.3	8.9
20°-30°	352.0	13.5
30°-40°	425.1	16.3
40°-50°	446.7	17.2
50°-60°	420.3	16.2
60°-70°	350.4	13.5
70°-80°	232.2	8.9
80°-90°	61.9	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°	665.5	25.6
0°-40°	1090.6	41.9
0°-60°	1957.5	75.2
0°-90°	2602.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2602.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	857	857	857	857	857	
5°	850	852	857	857	855	81
15°	816	819	824	827	829	230
25°	750	755	763	773	776	345
35°	657	663	680	694	701	411
45°	542	550	576	606	620	417
55°	405	424	469	517	537	363
65°	266	289	358	417	443	259
75°	116	162	238	287	302	126
85°	28	43	57	62	62	32
90°	0	0	0	0	0	



TEST NUMBER: P308241

CATALOG NUMBER: 22FCZ2-39HE-UNV-L82765-HRP-CA08-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	856.8	856.8	856.8	856.8	856.8
2.5°	853.5	855.2	858.5	858.5	856.8
5°	850.2	851.9	856.8	856.8	855.2
7.5°	845.3	847.0	850.2	853.5	851.9
10°	838.8	840.4	843.7	847.0	847.0
12.5°	827.3	828.9	835.5	837.1	837.1
15°	815.8	819.1	824.0	827.3	828.9
17.5°	801.0	804.3	810.9	817.4	817.4
20°	786.2	789.5	797.7	804.3	805.9
22.5°	768.2	773.1	781.3	789.5	792.8
25°	750.1	755.0	763.2	773.1	776.4
27.5°	728.8	733.7	745.2	756.7	758.3
30°	707.4	712.4	727.1	737.0	741.9
32.5°	681.2	687.7	702.5	717.3	722.2
35°	656.6	663.1	679.5	694.3	700.9
37.5°	630.3	636.9	654.9	673.0	681.2
40°	600.8	609.0	630.3	650.0	661.5
42.5°	572.8	581.1	602.4	628.7	640.1
45°	541.7	549.9	576.1	605.7	620.4
47.5°	508.8	518.7	549.9	586.0	600.8
50°	476.0	487.5	522.0	563.0	579.4
52.5°	441.5	456.3	495.7	540.0	559.7
55°	405.4	423.5	469.4	517.0	536.7
57.5°	371.0	387.4	441.5	492.4	513.8
60°	333.2	354.5	415.3	467.8	490.8
62.5°	297.1	320.1	387.4	443.2	467.8
65°	265.9	288.9	357.8	416.9	443.2
67.5°	224.9	256.1	333.2	389.0	415.3
70°	183.8	226.5	302.0	359.5	384.1
72.5°	152.6	193.7	270.8	328.3	351.3
75°	116.5	162.5	238.0	287.2	302.0
77.5°	87.0	134.6	203.5	228.2	229.8
80°	64.0	103.4	154.3	162.5	169.1
82.5°	44.3	72.2	100.1	110.0	113.3
85°	27.9	42.7	57.4	62.4	62.4
87.5°	14.8	16.4	19.7	19.7	19.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)