

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: P308202

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CA08-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: P308202
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: 22FCZ2-34HE-UNV-L82765-HRP-CA08-W2A-U-5700K
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: 2506.0 lumens
Efficiency: N/A
Efficacy: 88.2 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

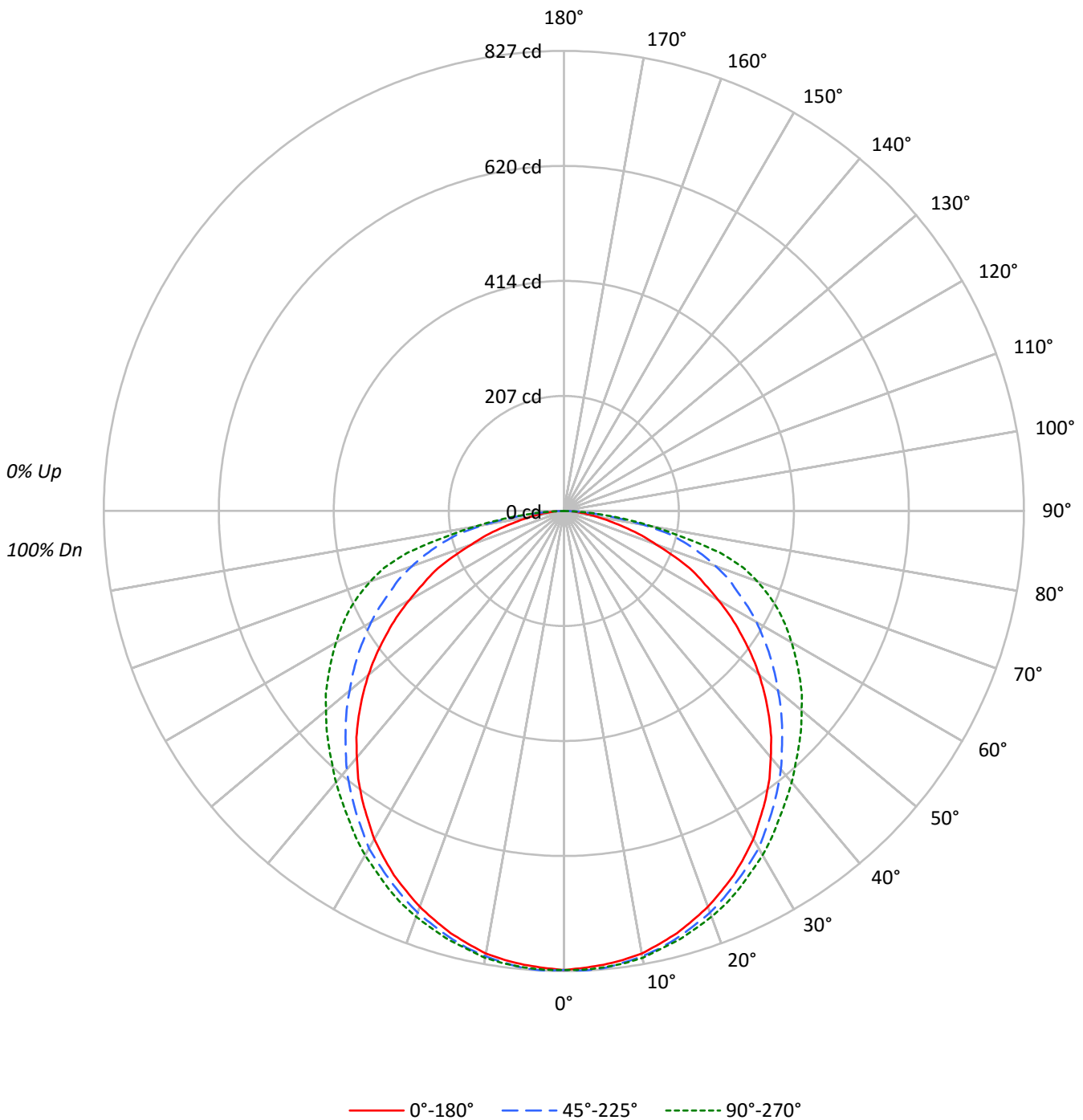
Input Watts (W): 28.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2221	2221	2221
5°	2212	2229	2225
10°	2207	2220	2229
15°	2189	2211	2224
20°	2168	2200	2223
25°	2145	2183	2220
30°	2117	2176	2220
35°	2077	2150	2217
40°	2033	2132	2238
45°	1985	2112	2274
50°	1919	2105	2336
55°	1832	2121	2425
60°	1727	2153	2544
65°	1631	2194	2718
70°	1393	2289	2910
75°	1167	2383	3025
80°	956	2303	2523
85°	831	1707	1856



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.2	3.1
10°-20°	223.7	8.9
20°-30°	339.0	13.5
30°-40°	409.4	16.3
40°-50°	430.2	17.2
50°-60°	404.8	16.2
60°-70°	337.5	13.5
70°-80°	223.6	8.9
80°-90°	59.6	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°	641.0	25.6
0°-40°	1050.4	41.9
0°-60°	1885.3	75.2
0°-90°	2506.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2506.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	825	825	825	825	825	
5°	819	820	825	825	824	78
15°	786	789	794	797	798	222
25°	722	727	735	745	748	333
35°	632	639	654	669	675	395
45°	522	530	555	583	598	402
55°	390	408	452	498	517	349
65°	256	278	345	402	427	249
75°	112	156	229	277	291	122
85°	27	41	55	60	60	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	825.2	825.2	825.2	825.2	825.2
2.5°	822.0	823.6	826.8	826.8	825.2
5°	818.9	820.5	825.2	825.2	823.6
7.5°	814.1	815.7	818.9	822.0	820.5
10°	807.8	809.4	812.6	815.7	815.7
12.5°	796.7	798.3	804.6	806.2	806.2
15°	785.7	788.8	793.6	796.7	798.3
17.5°	771.4	774.6	780.9	787.3	787.3
20°	757.2	760.4	768.3	774.6	776.2
22.5°	739.8	744.6	752.5	760.4	763.5
25°	722.4	727.2	735.1	744.6	747.7
27.5°	701.9	706.6	717.7	728.8	730.3
30°	681.3	686.1	700.3	709.8	714.5
32.5°	656.0	662.4	676.6	690.8	695.6
35°	632.3	638.7	654.5	668.7	675.0
37.5°	607.0	613.4	630.8	648.1	656.0
40°	578.6	586.5	607.0	626.0	637.1
42.5°	551.7	559.6	580.2	605.5	616.5
45°	521.7	529.6	554.9	583.3	597.6
47.5°	490.1	499.5	529.6	564.4	578.6
50°	458.4	469.5	502.7	542.2	558.0
52.5°	425.2	439.5	477.4	520.1	539.1
55°	390.5	407.9	452.1	498.0	516.9
57.5°	357.3	373.1	425.2	474.3	494.8
60°	320.9	341.5	400.0	450.5	472.7
62.5°	286.1	308.3	373.1	426.8	450.5
65°	256.1	278.2	344.6	401.5	426.8
67.5°	216.6	246.6	320.9	374.7	400.0
70°	177.1	218.2	290.9	346.2	369.9
72.5°	147.0	186.5	260.8	316.2	338.3
75°	112.2	156.5	229.2	276.6	290.9
77.5°	83.8	129.6	196.0	219.7	221.3
80°	61.7	99.6	148.6	156.5	162.8
82.5°	42.7	69.6	96.4	105.9	109.1
85°	26.9	41.1	55.3	60.1	60.1
87.5°	14.2	15.8	19.0	19.0	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)