

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: P308203

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CA08-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: P308203
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-6500K
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: 2513.0 lumens
Efficiency: N/A
Efficacy: 87.3 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

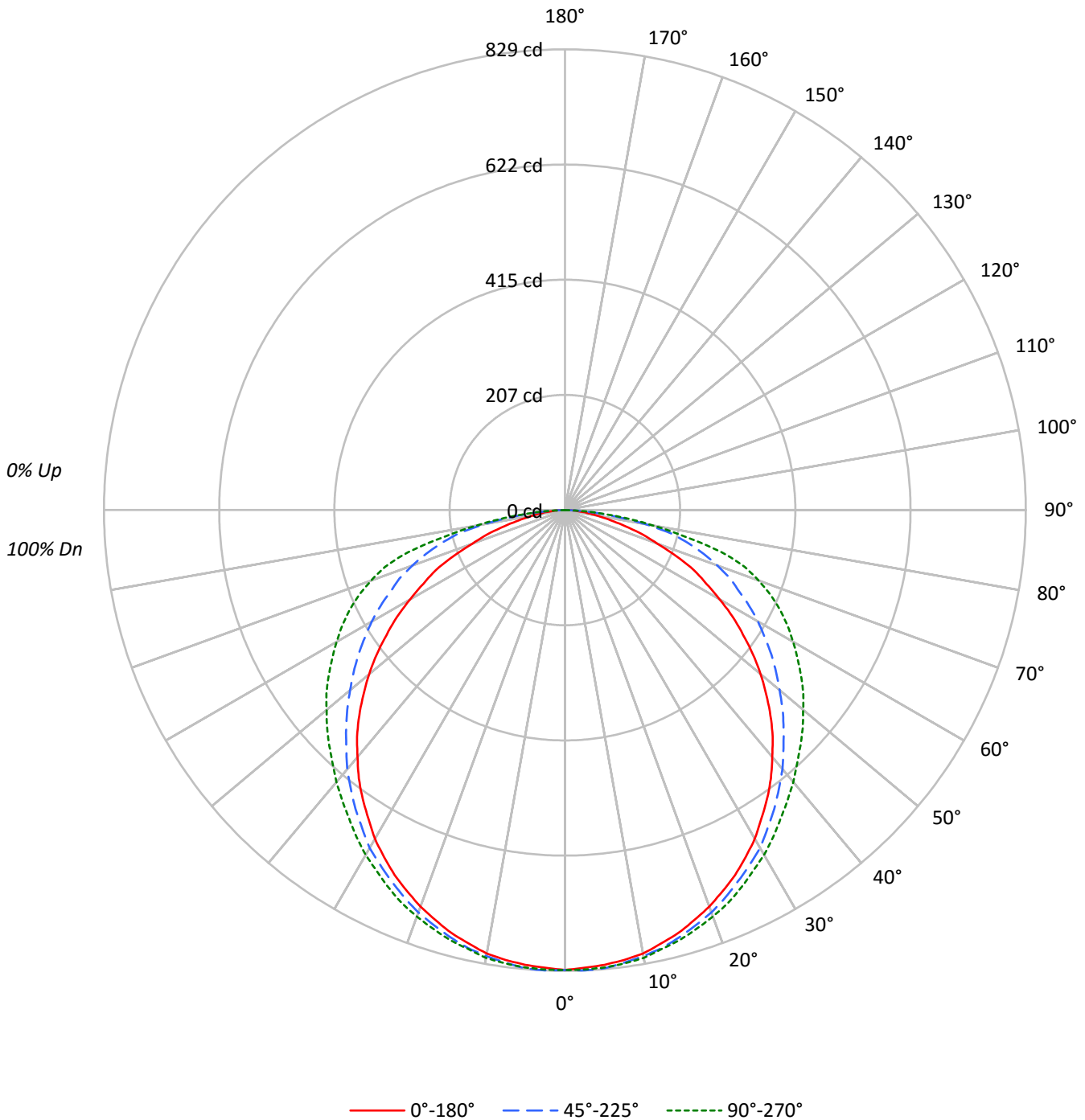
Input Watts (W): 28.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2227	2227	2227
5°	2218	2235	2231
10°	2214	2226	2235
15°	2195	2217	2230
20°	2174	2206	2229
25°	2151	2189	2226
30°	2123	2182	2226
35°	2083	2156	2224
40°	2038	2138	2244
45°	1991	2117	2280
50°	1924	2110	2343
55°	1837	2127	2432
60°	1732	2159	2551
65°	1635	2201	2725
70°	1397	2295	2918
75°	1171	2390	3033
80°	958	2309	2531
85°	831	1714	1859



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.4	3.1
10°-20°	224.3	8.9
20°-30°	340.0	13.5
30°-40°	410.5	16.3
40°-50°	431.4	17.2
50°-60°	405.9	16.2
60°-70°	338.4	13.5
70°-80°	224.2	8.9
80°-90°	59.8	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°	642.8	25.6
0°-40°	1053.3	41.9
0°-60°	1890.6	75.2
0°-90°	2513.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2513.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	821	823	828	828	826	78
15°	788	791	796	799	801	222
25°	724	729	737	747	750	334
35°	634	640	656	671	677	396
45°	523	531	556	585	599	403
55°	392	409	453	499	518	350
65°	257	279	346	403	428	250
75°	113	157	230	277	292	122
85°	27	41	56	60	60	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	827.5	827.5	827.5	827.5	827.5
2.5°	824.3	825.9	829.1	829.1	827.5
5°	821.2	822.7	827.5	827.5	825.9
7.5°	816.4	818.0	821.2	824.3	822.7
10°	810.1	811.7	814.8	818.0	818.0
12.5°	799.0	800.6	806.9	808.5	808.5
15°	787.9	791.0	795.8	799.0	800.6
17.5°	773.6	776.8	783.1	789.5	789.5
20°	759.3	762.5	770.4	776.8	778.4
22.5°	741.9	746.7	754.6	762.5	765.7
25°	724.5	729.2	737.1	746.7	749.8
27.5°	703.9	708.6	719.7	730.8	732.4
30°	683.2	688.0	702.3	711.8	716.5
32.5°	657.9	664.2	678.5	692.8	697.5
35°	634.1	640.4	656.3	670.6	676.9
37.5°	608.7	615.1	632.5	650.0	657.9
40°	580.2	588.1	608.7	627.8	638.9
42.5°	553.3	561.2	581.8	607.2	618.2
45°	523.1	531.1	556.4	585.0	599.2
47.5°	491.4	500.9	531.1	565.9	580.2
50°	459.7	470.8	504.1	543.7	559.6
52.5°	426.4	440.7	478.7	521.5	540.6
55°	391.6	409.0	453.4	499.4	518.4
57.5°	358.3	374.1	426.4	475.6	496.2
60°	321.8	342.4	401.1	451.8	474.0
62.5°	286.9	309.1	374.1	428.0	451.8
65°	256.8	279.0	345.6	402.7	428.0
67.5°	217.2	247.3	321.8	375.7	401.1
70°	177.5	218.8	291.7	347.2	370.9
72.5°	147.4	187.1	261.6	317.1	339.2
75°	112.6	156.9	229.9	277.4	291.7
77.5°	84.0	130.0	196.6	220.4	221.9
80°	61.8	99.9	149.0	156.9	163.3
82.5°	42.8	69.8	96.7	106.2	109.4
85°	26.9	41.2	55.5	60.2	60.2
87.5°	14.3	15.9	19.0	19.0	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)