

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: P308289

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CA08-W2A-U-4500K**

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: P308289
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: 22FCZ2-44HE-UNV-L82765-HRP-CA08-W2A-U-4500K
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: 3140.0 lumens
Efficiency: N/A
Efficacy: 82.8 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

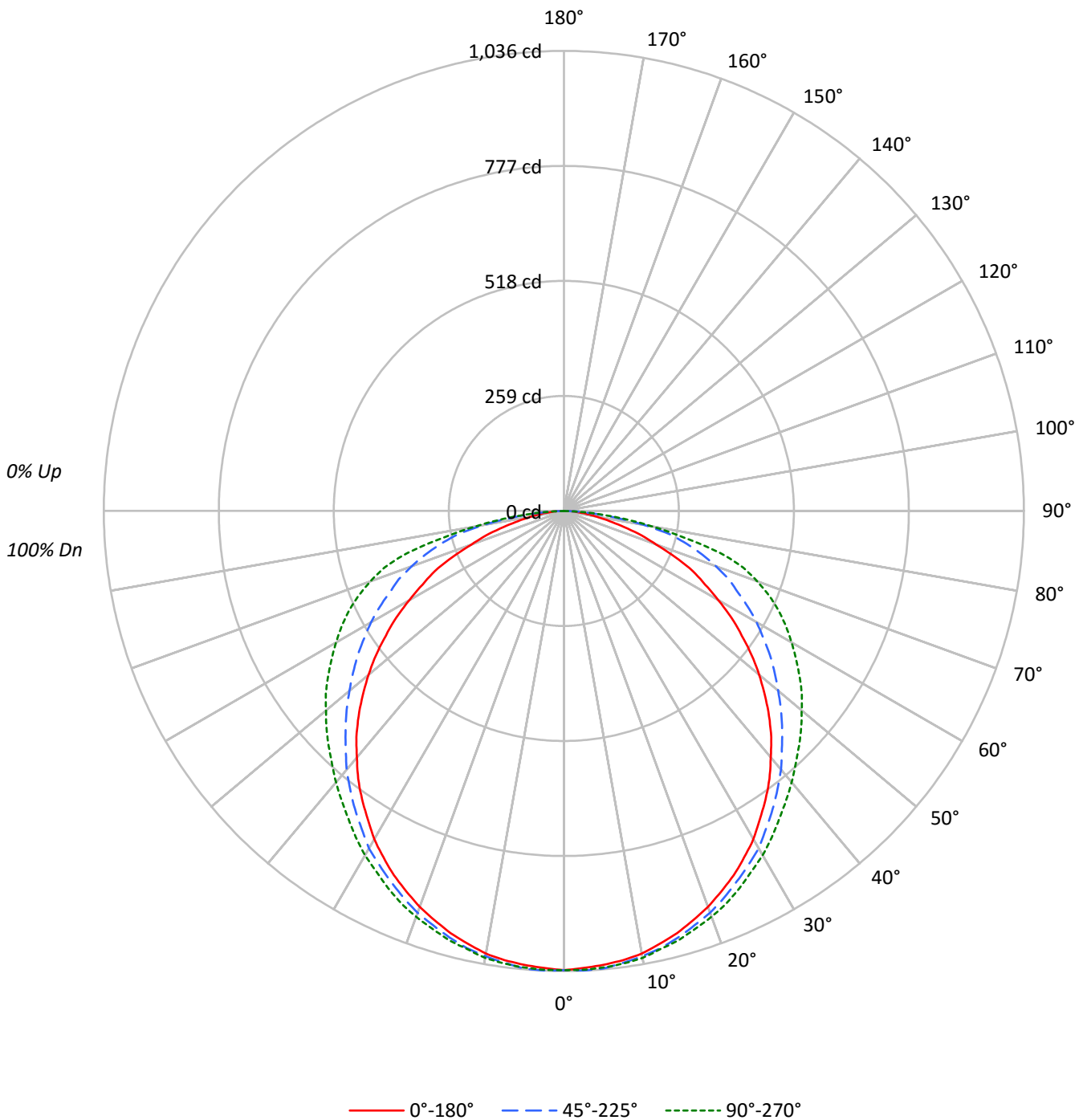
Input Watts (W): 37.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2782	2782	2782
5°	2771	2793	2788
10°	2766	2782	2793
15°	2742	2770	2787
20°	2717	2757	2785
25°	2688	2735	2782
30°	2653	2727	2782
35°	2603	2694	2779
40°	2547	2672	2804
45°	2488	2646	2849
50°	2405	2637	2927
55°	2296	2658	3039
60°	2164	2697	3188
65°	2043	2749	3405
70°	1745	2868	3647
75°	1462	2986	3790
80°	1198	2885	3161
85°	1041	2140	2325



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.0	3.1
10°-20°	280.3	8.9
20°-30°	424.8	13.5
30°-40°	513.0	16.3
40°-50°	539.0	17.2
50°-60°	507.2	16.2
60°-70°	422.9	13.5
70°-80°	280.2	8.9
80°-90°	74.7	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°	803.1	25.6
0°-40°	1316.1	41.9
0°-60°	2362.3	75.2
0°-90°	3140.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3140.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1034	1034	1034	1034	1034	
5°	1026	1028	1034	1034	1032	98
15°	984	988	994	998	1000	278
25°	905	911	921	933	937	417
35°	792	800	820	838	846	495
45°	654	664	695	731	749	503
55°	489	511	566	624	648	438
65°	321	349	432	503	535	312
75°	141	196	287	347	364	153
85°	34	52	69	75	75	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1034.0	1034.0	1034.0	1034.0	1034.0
2.5°	1030.0	1032.0	1035.9	1035.9	1034.0
5°	1026.0	1028.0	1034.0	1034.0	1032.0
7.5°	1020.1	1022.1	1026.0	1030.0	1028.0
10°	1012.2	1014.2	1018.1	1022.1	1022.1
12.5°	998.3	1000.3	1008.2	1010.2	1010.2
15°	984.4	988.4	994.4	998.3	1000.3
17.5°	966.6	970.6	978.5	986.4	986.4
20°	948.8	952.8	962.7	970.6	972.6
22.5°	927.0	932.9	942.9	952.8	956.7
25°	905.2	911.2	921.1	932.9	936.9
27.5°	879.5	885.4	899.3	913.1	915.1
30°	853.7	859.7	877.5	889.4	895.3
32.5°	822.0	829.9	847.8	865.6	871.5
35°	792.3	800.2	820.0	837.9	845.8
37.5°	760.6	768.5	790.3	812.1	822.0
40°	725.0	734.9	760.6	784.4	798.3
42.5°	691.3	701.2	726.9	758.6	772.5
45°	653.7	663.6	695.3	730.9	748.7
47.5°	614.0	625.9	663.6	707.1	725.0
50°	574.4	588.3	629.9	679.4	699.2
52.5°	532.8	550.7	598.2	651.7	675.4
55°	489.3	511.0	566.5	623.9	647.7
57.5°	447.7	467.5	532.8	594.2	620.0
60°	402.1	427.8	501.1	564.5	592.3
62.5°	358.5	386.3	467.5	534.8	564.5
65°	320.9	348.6	431.8	503.1	534.8
67.5°	271.4	309.0	402.1	469.4	501.1
70°	221.8	273.3	364.5	433.8	463.5
72.5°	184.2	233.7	326.8	396.2	423.9
75°	140.6	196.1	287.2	346.6	364.5
77.5°	105.0	162.4	245.6	275.3	277.3
80°	77.3	124.8	186.2	196.1	204.0
82.5°	53.5	87.2	120.8	132.7	136.7
85°	33.7	51.5	69.3	75.3	75.3
87.5°	17.8	19.8	23.8	23.8	23.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)