

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: P314518

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-S-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: P314518
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-75HE-UNV-L83050-S-CA08-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.08" ACRYLIC SHEET
Light Source: (336) 4500K 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

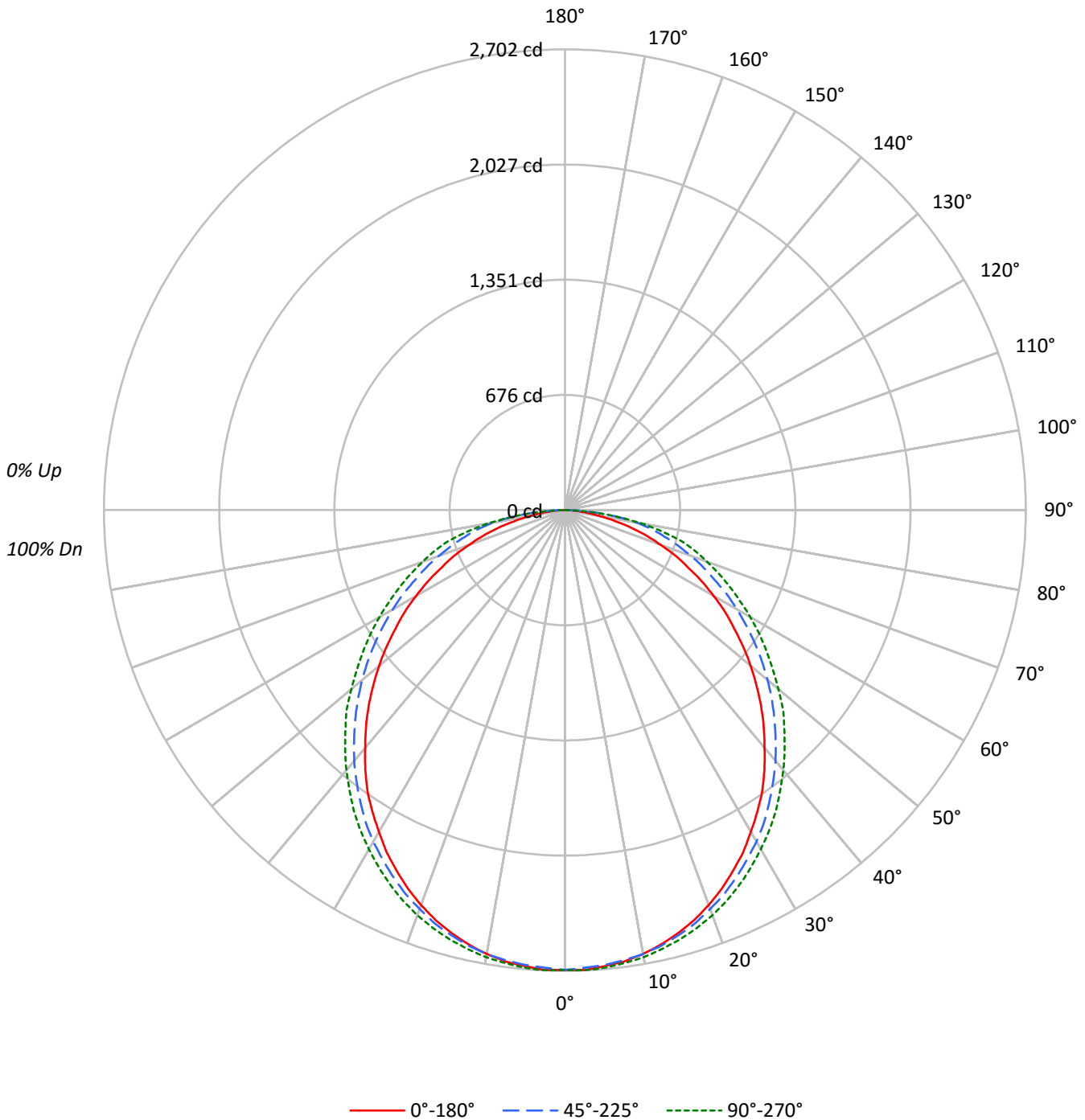
Lumens per Lamp: N/A
Luminaire Lumens: 7676.0 lumens
Efficiency: N/A
Efficacy: 116.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 65.9
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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CATALOG NUMBER: 24FC22-75HE-UNV-L83050-S-CA08-W2A-U-4500K

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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3628	3628	3628
5°	3626	3616	3639
10°	3611	3611	3638
15°	3576	3593	3631
20°	3529	3564	3620
25°	3464	3529	3598
30°	3386	3489	3568
35°	3312	3432	3540
40°	3199	3375	3499
45°	3095	3308	3461
50°	2975	3246	3419
55°	2843	3186	3386
60°	2710	3136	3379
65°	2538	3082	3400
70°	2350	3098	3491
75°	2104	3156	3688
80°	1700	3344	3608
85°	1280	2936	2861



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.3	3.3
10°-20°	729.5	9.5
20°-30°	1096.5	14.3
30°-40°	1306.2	17.0
40°-50°	1336.8	17.4
50°-60°	1203.5	15.7
60°-70°	945.1	12.3
70°-80°	613.4	8.0
80°-90°	189.7	2.5
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°	2081.3	27.1
0°-40°	3387.4	44.1
0°-60°	5927.8	77.2
0°-90°	7676.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7676.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2697	2697	2697	2697	2697	
5°	2684	2689	2677	2692	2694	255
15°	2567	2575	2580	2602	2606	724
25°	2333	2353	2377	2416	2424	1075
35°	2016	2041	2090	2141	2155	1258
45°	1626	1665	1738	1804	1819	1254
55°	1212	1265	1358	1429	1443	1086
65°	797	858	968	1048	1068	794
75°	405	483	607	690	710	428
85°	83	154	190	185	185	100
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2696.6	2696.6	2696.6	2696.6	2696.6
2.5°	2699.1	2699.1	2686.9	2699.1	2701.5
5°	2684.4	2689.3	2677.1	2691.8	2694.2
7.5°	2669.8	2669.8	2662.5	2677.1	2679.6
10°	2643.0	2645.4	2643.0	2660.1	2662.5
12.5°	2608.9	2613.7	2616.2	2633.2	2635.7
15°	2567.4	2574.7	2579.6	2601.5	2606.4
17.5°	2521.1	2528.4	2540.6	2565.0	2569.8
20°	2465.0	2474.8	2489.4	2521.1	2528.4
22.5°	2404.0	2413.8	2438.2	2467.4	2479.6
25°	2333.3	2352.8	2377.2	2416.2	2423.6
27.5°	2262.6	2279.7	2311.4	2352.8	2362.6
30°	2179.7	2206.6	2245.6	2287.0	2296.8
32.5°	2099.3	2126.1	2172.4	2216.3	2228.5
35°	2016.4	2040.8	2089.5	2140.7	2155.4
37.5°	1921.3	1953.0	2006.6	2057.8	2072.5
40°	1821.3	1860.3	1921.3	1974.9	1992.0
42.5°	1726.2	1767.7	1828.6	1887.2	1906.7
45°	1626.3	1665.3	1738.4	1804.3	1818.9
47.5°	1523.9	1567.8	1645.8	1711.6	1736.0
50°	1421.5	1467.8	1550.7	1619.0	1633.6
52.5°	1319.1	1367.8	1455.6	1528.7	1536.1
55°	1211.8	1265.4	1358.1	1428.8	1443.4
57.5°	1114.2	1160.6	1260.5	1333.7	1350.8
60°	1007.0	1058.2	1165.5	1233.7	1255.7
62.5°	904.6	958.2	1070.4	1138.6	1158.1
65°	797.3	858.2	968.0	1048.4	1067.9
67.5°	704.6	763.2	880.2	958.2	977.7
70°	597.4	663.2	787.5	868.0	887.5
72.5°	504.7	573.0	697.3	775.3	804.6
75°	404.7	482.8	607.1	690.0	709.5
77.5°	307.2	397.4	524.2	587.6	587.6
80°	219.4	314.5	431.6	460.8	465.7
82.5°	143.9	236.5	319.4	317.0	317.0
85°	82.9	153.6	190.2	185.3	185.3
87.5°	31.7	63.4	68.3	68.3	65.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)