

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: P314521

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-S-CA125-W2A-U-3500K**

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: P314521
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-CA125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 3500K 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: 7216.0 lumens
Efficiency: N/A
Efficacy: 114.9 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

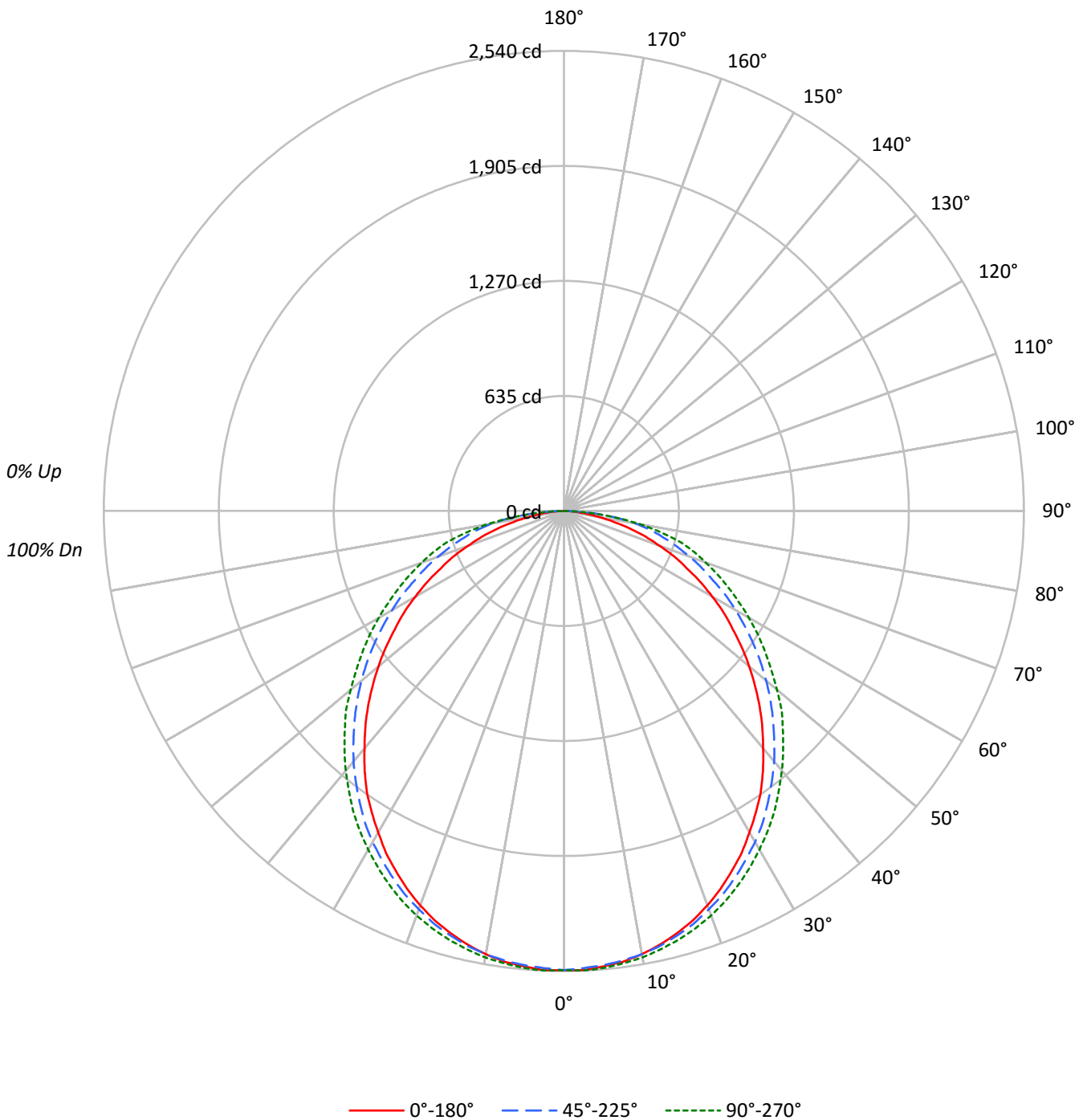
Input Watts (W): 62.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 24FC22-75HE-UNV-L83050-S-CA125-W2A-U-3500K

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°	3411	3411	3411
5°	3408	3399	3421
10°	3395	3395	3420
15°	3362	3378	3413
20°	3318	3351	3403
25°	3256	3318	3382
30°	3184	3280	3354
35°	3113	3226	3328
40°	3007	3172	3289
45°	2909	3110	3254
50°	2797	3051	3215
55°	2672	2995	3183
60°	2547	2948	3176
65°	2386	2897	3196
70°	2209	2912	3282
75°	1978	2967	3467
80°	1598	3144	3392
85°	1203	2760	2689



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.0	3.3
10°-20°	685.7	9.5
20°-30°	1030.8	14.3
30°-40°	1227.9	17.0
40°-50°	1256.7	17.4
50°-60°	1131.4	15.7
60°-70°	888.5	12.3
70°-80°	576.7	8.0
80°-90°	178.4	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°	1956.6	27.1
0°-40°	3184.4	44.1
0°-60°	5572.5	77.2
0°-90°	7216.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7216.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2535	2535	2535	2535	2535	
5°	2524	2528	2517	2530	2533	240
15°	2414	2420	2425	2446	2450	681
25°	2194	2212	2235	2271	2278	1010
35°	1896	1918	1964	2012	2026	1183
45°	1529	1566	1634	1696	1710	1179
55°	1139	1190	1277	1343	1357	1021
65°	750	807	910	986	1004	746
75°	380	454	571	649	667	403
85°	78	144	179	174	174	94
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2535.0	2535.0	2535.0	2535.0	2535.0
2.5°	2537.3	2537.3	2525.9	2537.3	2539.6
5°	2523.6	2528.2	2516.7	2530.4	2532.7
7.5°	2509.8	2509.8	2502.9	2516.7	2519.0
10°	2484.6	2486.9	2484.6	2500.6	2502.9
12.5°	2452.5	2457.1	2459.4	2475.4	2477.7
15°	2413.5	2420.4	2425.0	2445.6	2450.2
17.5°	2370.0	2376.9	2388.3	2411.3	2415.8
20°	2317.3	2326.4	2340.2	2370.0	2376.9
22.5°	2260.0	2269.1	2292.1	2319.6	2331.0
25°	2193.5	2211.8	2234.8	2271.4	2278.3
27.5°	2127.0	2143.1	2172.9	2211.8	2221.0
30°	2049.1	2074.3	2111.0	2150.0	2159.1
32.5°	1973.5	1998.7	2042.2	2083.5	2095.0
35°	1895.5	1918.5	1964.3	2012.4	2026.2
37.5°	1806.2	1835.9	1886.4	1934.5	1948.3
40°	1712.2	1748.8	1806.2	1856.6	1872.6
42.5°	1622.8	1661.7	1719.1	1774.1	1792.4
45°	1528.8	1565.5	1634.2	1696.1	1709.9
47.5°	1432.5	1473.8	1547.1	1609.0	1632.0
50°	1336.3	1379.8	1457.8	1521.9	1535.7
52.5°	1240.0	1285.9	1368.4	1437.1	1444.0
55°	1139.2	1189.6	1276.7	1343.2	1356.9
57.5°	1047.5	1091.0	1185.0	1253.8	1269.8
60°	946.6	994.8	1095.6	1159.8	1180.4
62.5°	850.4	900.8	1006.2	1070.4	1088.7
65°	749.5	806.8	910.0	985.6	1003.9
67.5°	662.4	717.4	827.4	900.8	919.1
70°	561.6	623.4	740.3	816.0	834.3
72.5°	474.5	538.6	655.5	728.9	756.4
75°	380.5	453.8	570.7	648.7	667.0
77.5°	288.8	373.6	492.8	552.4	552.4
80°	206.3	295.7	405.7	433.2	437.8
82.5°	135.2	222.3	300.3	298.0	298.0
85°	77.9	144.4	178.8	174.2	174.2
87.5°	29.8	59.6	64.2	64.2	61.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)