

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: P314538

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-S-CP250-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: P314538
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-CP250-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.250" POLYCARB 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: 7124.0 lumens
Efficiency: N/A
Efficacy: 108.1 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

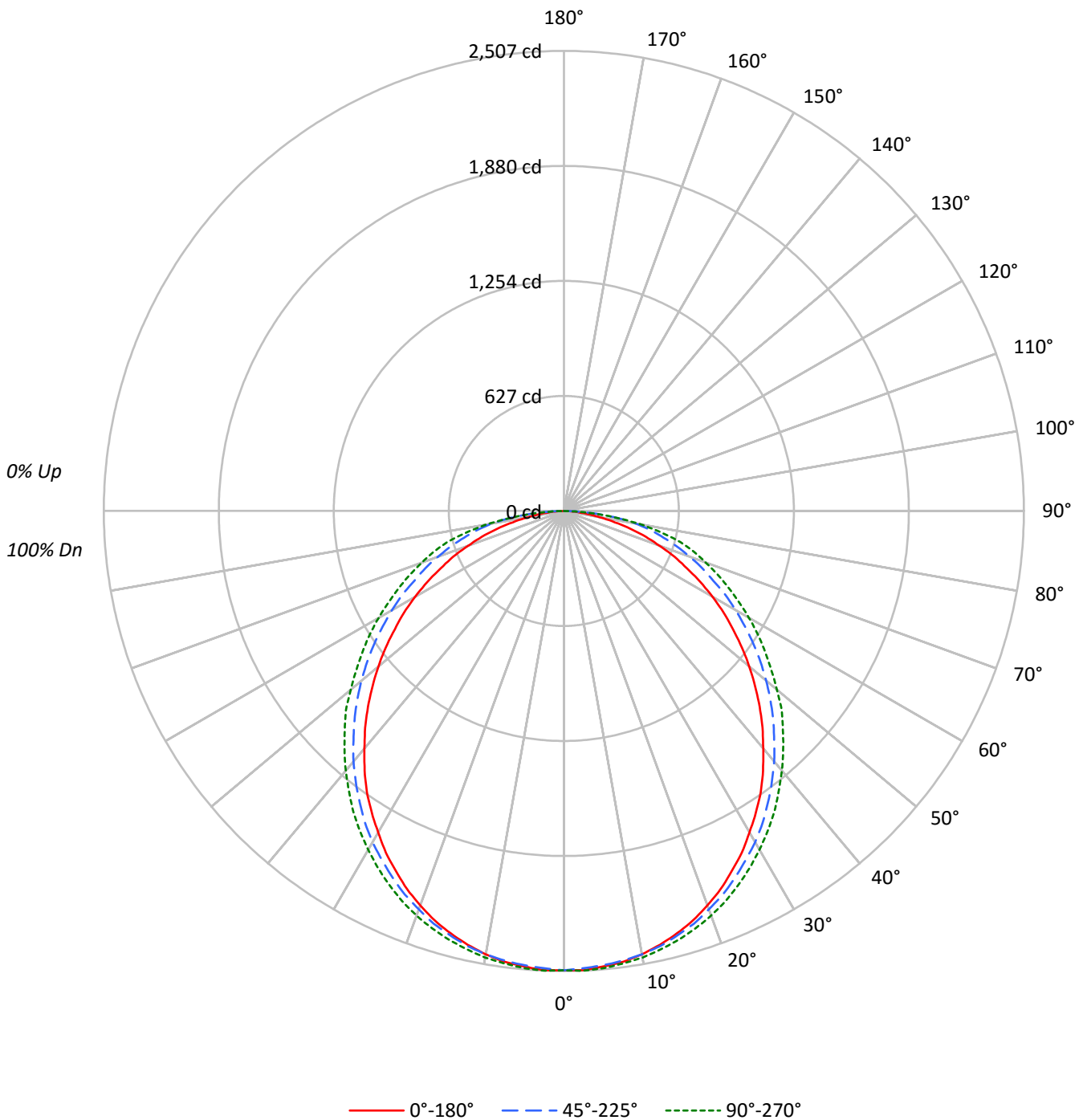
Input Watts (W): 65.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 24FC22-75HE-UNV-L83050-S-CP250-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°	3367	3367	3367
5°	3365	3356	3377
10°	3351	3351	3376
15°	3319	3335	3370
20°	3276	3308	3360
25°	3215	3275	3339
30°	3143	3238	3312
35°	3074	3185	3286
40°	2969	3132	3247
45°	2872	3070	3212
50°	2761	3013	3174
55°	2638	2957	3142
60°	2515	2911	3136
65°	2356	2860	3155
70°	2181	2875	3240
75°	1953	2929	3423
80°	1578	3103	3349
85°	1187	2725	2655



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	236.9	3.3
10°-20°	677.0	9.5
20°-30°	1017.7	14.3
30°-40°	1212.2	17.0
40°-50°	1240.6	17.4
50°-60°	1117.0	15.7
60°-70°	877.2	12.3
70°-80°	569.3	8.0
80°-90°	176.1	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°	1931.6	27.1
0°-40°	3143.8	44.1
0°-60°	5501.4	77.2
0°-90°	7124.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7124.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2503	2503	2503	2503	2503	
5°	2491	2496	2485	2498	2500	237
15°	2383	2390	2394	2414	2419	672
25°	2166	2184	2206	2242	2249	998
35°	1871	1894	1939	1987	2000	1167
45°	1509	1546	1613	1674	1688	1164
55°	1125	1174	1260	1326	1340	1008
65°	740	796	898	973	991	737
75°	376	448	563	640	658	397
85°	77	143	176	172	172	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2502.7	2502.7	2502.7	2502.7	2502.7
2.5°	2505.0	2505.0	2493.7	2505.0	2507.2
5°	2491.4	2495.9	2484.6	2498.2	2500.4
7.5°	2477.8	2477.8	2471.0	2484.6	2486.9
10°	2452.9	2455.2	2452.9	2468.8	2471.0
12.5°	2421.2	2425.8	2428.0	2443.9	2446.1
15°	2382.8	2389.6	2394.1	2414.5	2419.0
17.5°	2339.8	2346.6	2357.9	2380.5	2385.0
20°	2287.7	2296.8	2310.4	2339.8	2346.6
22.5°	2231.2	2240.2	2262.8	2290.0	2301.3
25°	2165.5	2183.6	2206.3	2242.5	2249.3
27.5°	2099.9	2115.8	2145.2	2183.6	2192.7
30°	2023.0	2047.9	2084.1	2122.5	2131.6
32.5°	1948.3	1973.2	2016.2	2056.9	2068.2
35°	1871.4	1894.0	1939.3	1986.8	2000.4
37.5°	1783.1	1812.5	1862.3	1909.8	1923.4
40°	1690.3	1726.6	1783.1	1832.9	1848.7
42.5°	1602.1	1640.6	1697.1	1751.4	1769.5
45°	1509.3	1545.5	1613.4	1674.5	1688.1
47.5°	1414.3	1455.0	1527.4	1588.5	1611.1
50°	1319.2	1362.2	1439.2	1502.5	1516.1
52.5°	1224.2	1269.5	1350.9	1418.8	1425.6
55°	1124.6	1174.4	1260.4	1326.0	1339.6
57.5°	1034.1	1077.1	1169.9	1237.8	1253.6
60°	934.6	982.1	1081.6	1145.0	1165.4
62.5°	839.5	889.3	993.4	1056.7	1074.9
65°	740.0	796.5	898.3	973.0	991.1
67.5°	654.0	708.3	816.9	889.3	907.4
70°	554.4	615.5	730.9	805.6	823.7
72.5°	468.4	531.8	647.2	719.6	746.7
75°	375.6	448.0	563.4	640.4	658.5
77.5°	285.1	368.8	486.5	545.3	545.3
80°	203.7	291.9	400.5	427.7	432.2
82.5°	133.5	219.5	296.4	294.2	294.2
85°	76.9	142.6	176.5	172.0	172.0
87.5°	29.4	58.8	63.4	63.4	61.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)