

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: P314522

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-S-CA125-W2A-U-4000K**

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: P314522
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-4000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 4000K 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: 7576.0 lumens
Efficiency: N/A
Efficacy: 118.0 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

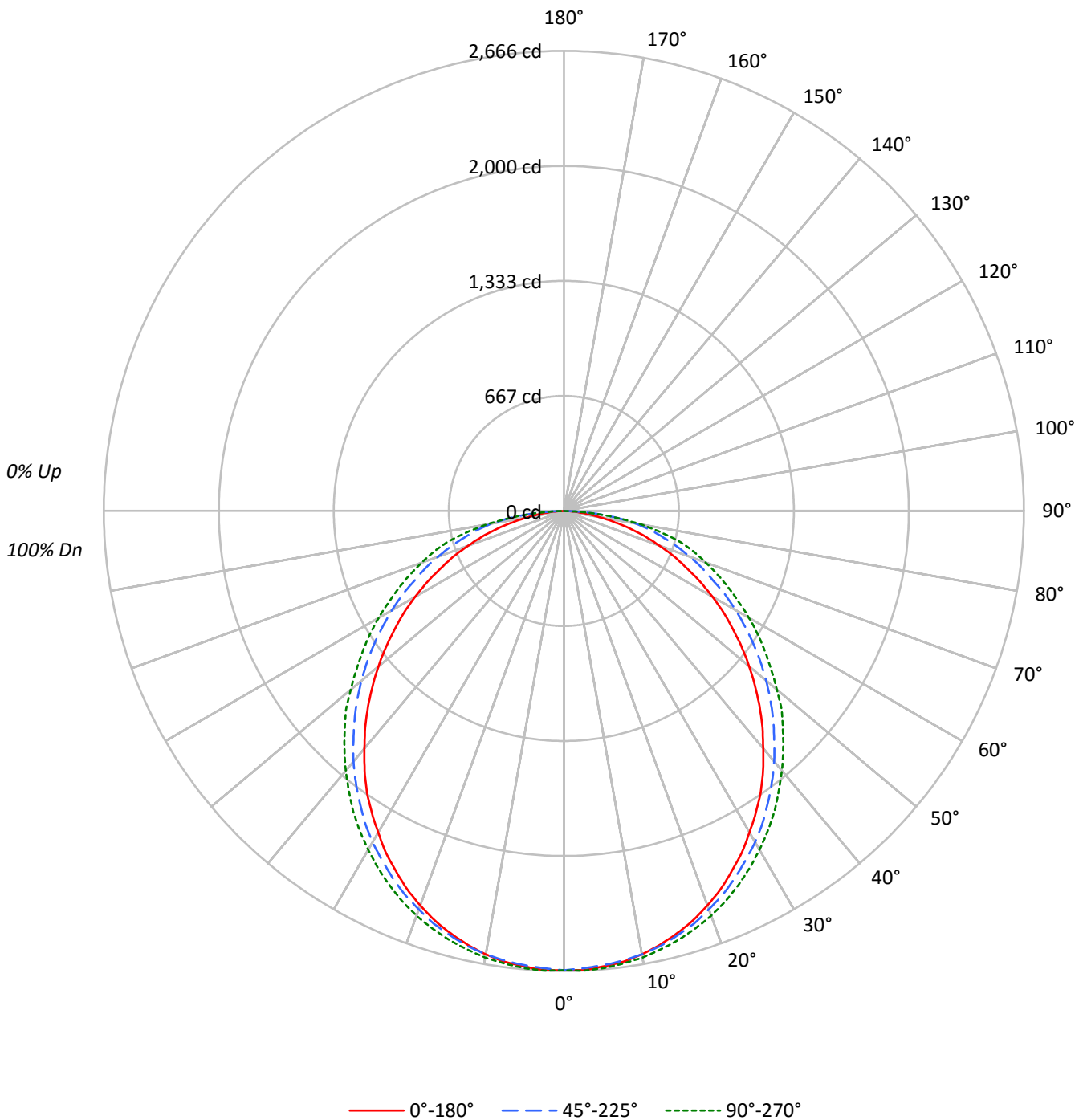
Input Watts (W): 64.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	3581	3581	3581
5°	3578	3569	3591
10°	3564	3564	3590
15°	3530	3546	3583
20°	3484	3518	3573
25°	3419	3483	3551
30°	3342	3443	3522
35°	3269	3387	3494
40°	3157	3331	3453
45°	3054	3265	3416
50°	2937	3204	3375
55°	2806	3144	3342
60°	2675	3095	3335
65°	2505	3041	3356
70°	2319	3058	3446
75°	2077	3115	3641
80°	1678	3300	3561
85°	1263	2898	2824



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.0	3.3
10°-20°	720.0	9.5
20°-30°	1082.3	14.3
30°-40°	1289.1	17.0
40°-50°	1319.4	17.4
50°-60°	1187.8	15.7
60°-70°	932.8	12.3
70°-80°	605.4	8.0
80°-90°	187.2	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°	2054.2	27.1
0°-40°	3343.3	44.1
0°-60°	5850.5	77.2
0°-90°	7576.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7576.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2662	2662	2662	2662	2662	
5°	2650	2654	2642	2657	2659	252
15°	2534	2541	2546	2568	2572	714
25°	2303	2322	2346	2385	2392	1061
35°	1990	2014	2062	2113	2127	1242
45°	1605	1644	1716	1781	1795	1237
55°	1196	1249	1340	1410	1425	1072
65°	787	847	955	1035	1054	783
75°	400	476	599	681	700	423
85°	82	152	188	183	183	99
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2661.5	2661.5	2661.5	2661.5	2661.5
2.5°	2663.9	2663.9	2651.9	2663.9	2666.3
5°	2649.5	2654.3	2642.2	2656.7	2659.1
7.5°	2635.0	2635.0	2627.8	2642.2	2644.7
10°	2608.6	2611.0	2608.6	2625.4	2627.8
12.5°	2574.9	2579.7	2582.1	2598.9	2601.3
15°	2534.0	2541.2	2546.0	2567.6	2572.5
17.5°	2488.2	2495.5	2507.5	2531.6	2536.4
20°	2432.9	2442.5	2457.0	2488.2	2495.5
22.5°	2372.7	2382.4	2406.4	2435.3	2447.3
25°	2302.9	2322.2	2346.3	2384.8	2392.0
27.5°	2233.2	2250.0	2281.3	2322.2	2331.8
30°	2151.3	2177.8	2216.3	2257.2	2266.8
32.5°	2071.9	2098.4	2144.1	2187.4	2199.5
35°	1990.1	2014.2	2062.3	2112.8	2127.3
37.5°	1896.3	1927.5	1980.5	2031.0	2045.5
40°	1797.6	1836.1	1896.3	1949.2	1966.0
42.5°	1703.7	1744.7	1804.8	1862.6	1881.8
45°	1605.1	1643.6	1715.8	1780.7	1795.2
47.5°	1504.0	1547.3	1624.3	1689.3	1713.4
50°	1402.9	1448.7	1530.5	1597.9	1612.3
52.5°	1301.9	1350.0	1436.6	1508.8	1516.0
55°	1196.0	1248.9	1340.4	1410.2	1424.6
57.5°	1099.7	1145.5	1244.1	1316.3	1333.2
60°	993.9	1044.4	1150.3	1217.6	1239.3
62.5°	892.8	945.7	1056.4	1123.8	1143.0
65°	786.9	847.1	955.3	1034.8	1054.0
67.5°	695.5	753.2	868.7	945.7	965.0
70°	589.6	654.5	777.3	856.7	875.9
72.5°	498.1	565.5	688.2	765.2	794.1
75°	399.5	476.5	599.2	681.0	700.3
77.5°	303.2	392.2	517.4	579.9	579.9
80°	216.6	310.4	425.9	454.8	459.6
82.5°	142.0	233.4	315.2	312.8	312.8
85°	81.8	151.6	187.7	182.9	182.9
87.5°	31.3	62.6	67.4	67.4	65.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)