

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: P314528

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-S-CP125-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: P314528
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-CP125-W2A-U-4500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" 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: 7500.0 lumens
Efficiency: N/A
Efficacy: 113.8 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

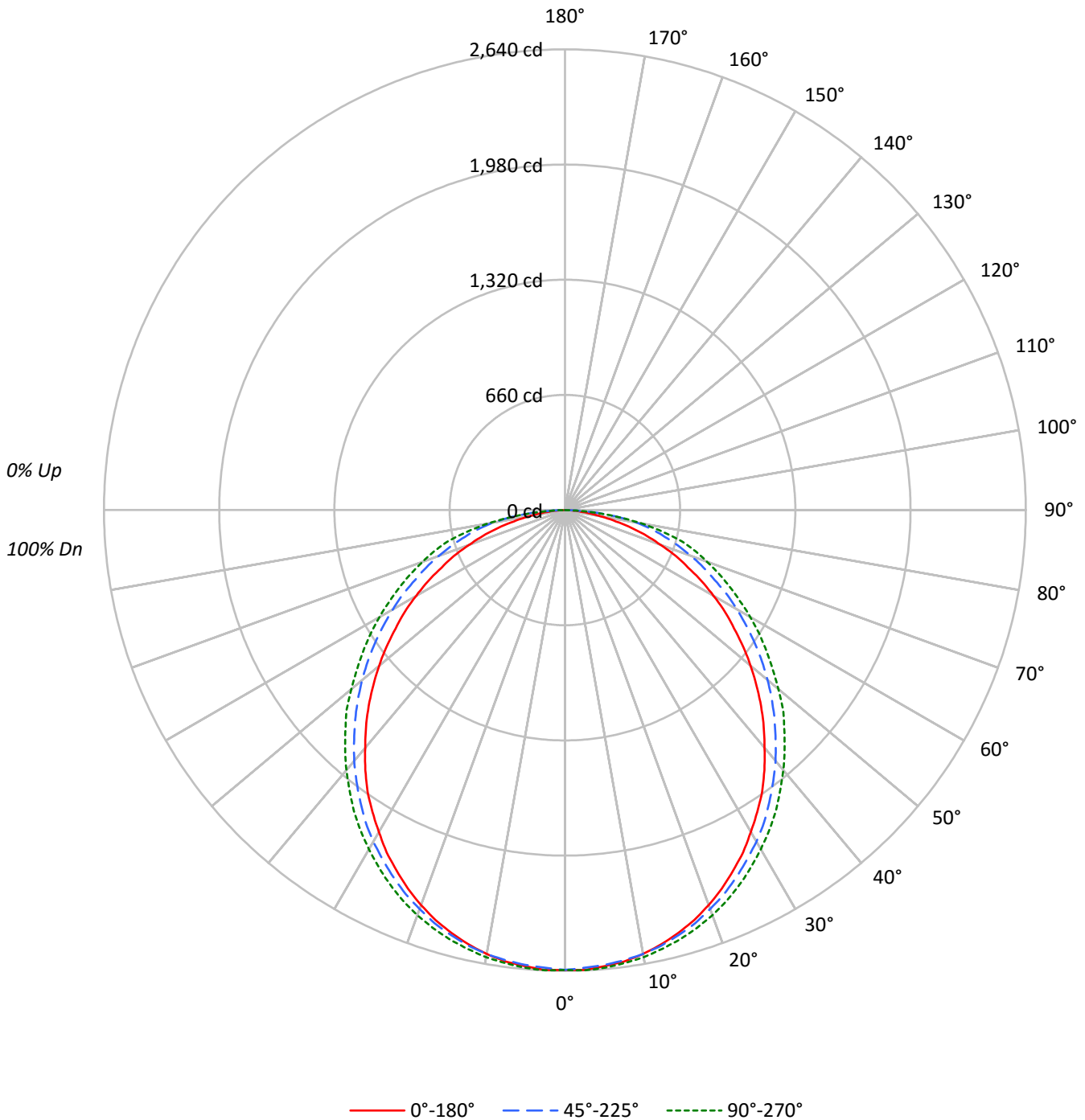
Input Watts (W): 65.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69					69			
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3545	3545	3545
5°	3543	3533	3555
10°	3528	3528	3554
15°	3494	3511	3547
20°	3449	3483	3537
25°	3385	3448	3515
30°	3309	3409	3487
35°	3236	3353	3459
40°	3126	3297	3419
45°	3024	3232	3382
50°	2907	3171	3341
55°	2777	3113	3308
60°	2648	3064	3302
65°	2480	3011	3322
70°	2296	3027	3411
75°	2056	3084	3604
80°	1661	3267	3526
85°	1250	2868	2796



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.4	3.3
10°-20°	712.7	9.5
20°-30°	1071.4	14.3
30°-40°	1276.2	17.0
40°-50°	1306.1	17.4
50°-60°	1175.9	15.7
60°-70°	923.5	12.3
70°-80°	599.3	8.0
80°-90°	185.4	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°	2033.6	27.1
0°-40°	3309.8	44.1
0°-60°	5791.8	77.2
0°-90°	7500.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7500.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2635	2635	2635	2635	2635	
5°	2623	2628	2616	2630	2632	249
15°	2508	2516	2520	2542	2547	707
25°	2280	2299	2323	2361	2368	1050
35°	1970	1994	2042	2092	2106	1229
45°	1589	1627	1699	1763	1777	1225
55°	1184	1236	1327	1396	1410	1061
65°	779	839	946	1024	1043	775
75°	396	472	593	674	693	418
85°	81	150	186	181	181	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2634.8	2634.8	2634.8	2634.8	2634.8
2.5°	2637.2	2637.2	2625.3	2637.2	2639.6
5°	2622.9	2627.7	2615.7	2630.0	2632.4
7.5°	2608.6	2608.6	2601.4	2615.7	2618.1
10°	2582.4	2584.8	2582.4	2599.1	2601.4
12.5°	2549.0	2553.8	2556.2	2572.9	2575.2
15°	2508.5	2515.7	2520.4	2541.9	2546.7
17.5°	2463.3	2470.4	2482.3	2506.2	2510.9
20°	2408.5	2418.0	2432.3	2463.3	2470.4
22.5°	2348.9	2358.5	2382.3	2410.9	2422.8
25°	2279.8	2298.9	2322.7	2360.8	2368.0
27.5°	2210.8	2227.4	2258.4	2298.9	2308.4
30°	2129.8	2156.0	2194.1	2234.6	2244.1
32.5°	2051.1	2077.3	2122.6	2165.5	2177.4
35°	1970.1	1994.0	2041.6	2091.6	2105.9
37.5°	1877.2	1908.2	1960.6	2010.6	2024.9
40°	1779.6	1817.7	1877.2	1929.6	1946.3
42.5°	1686.7	1727.2	1786.7	1843.9	1862.9
45°	1589.0	1627.1	1698.6	1762.9	1777.2
47.5°	1488.9	1531.8	1608.0	1672.4	1696.2
50°	1388.9	1434.1	1515.1	1581.8	1596.1
52.5°	1288.8	1336.5	1422.2	1493.7	1500.8
55°	1184.0	1236.4	1326.9	1396.0	1410.3
57.5°	1088.7	1134.0	1231.6	1303.1	1319.8
60°	983.9	1033.9	1138.7	1205.4	1226.9
62.5°	883.8	936.2	1045.8	1112.5	1131.6
65°	779.0	838.6	945.8	1024.4	1043.4
67.5°	688.5	745.7	860.0	936.2	955.3
70°	583.7	648.0	769.5	848.1	867.1
72.5°	493.1	559.8	681.3	757.6	786.2
75°	395.5	471.7	593.2	674.2	693.2
77.5°	300.2	388.3	512.2	574.1	574.1
80°	214.4	307.3	421.7	450.3	455.0
82.5°	140.6	231.1	312.1	309.7	309.7
85°	81.0	150.1	185.8	181.1	181.1
87.5°	31.0	61.9	66.7	66.7	64.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)