

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: P313772

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-RDP-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: P313772
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
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-RDP-CA125-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 4850.0 lumens
Efficiency: N/A
Efficacy: 75.5 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

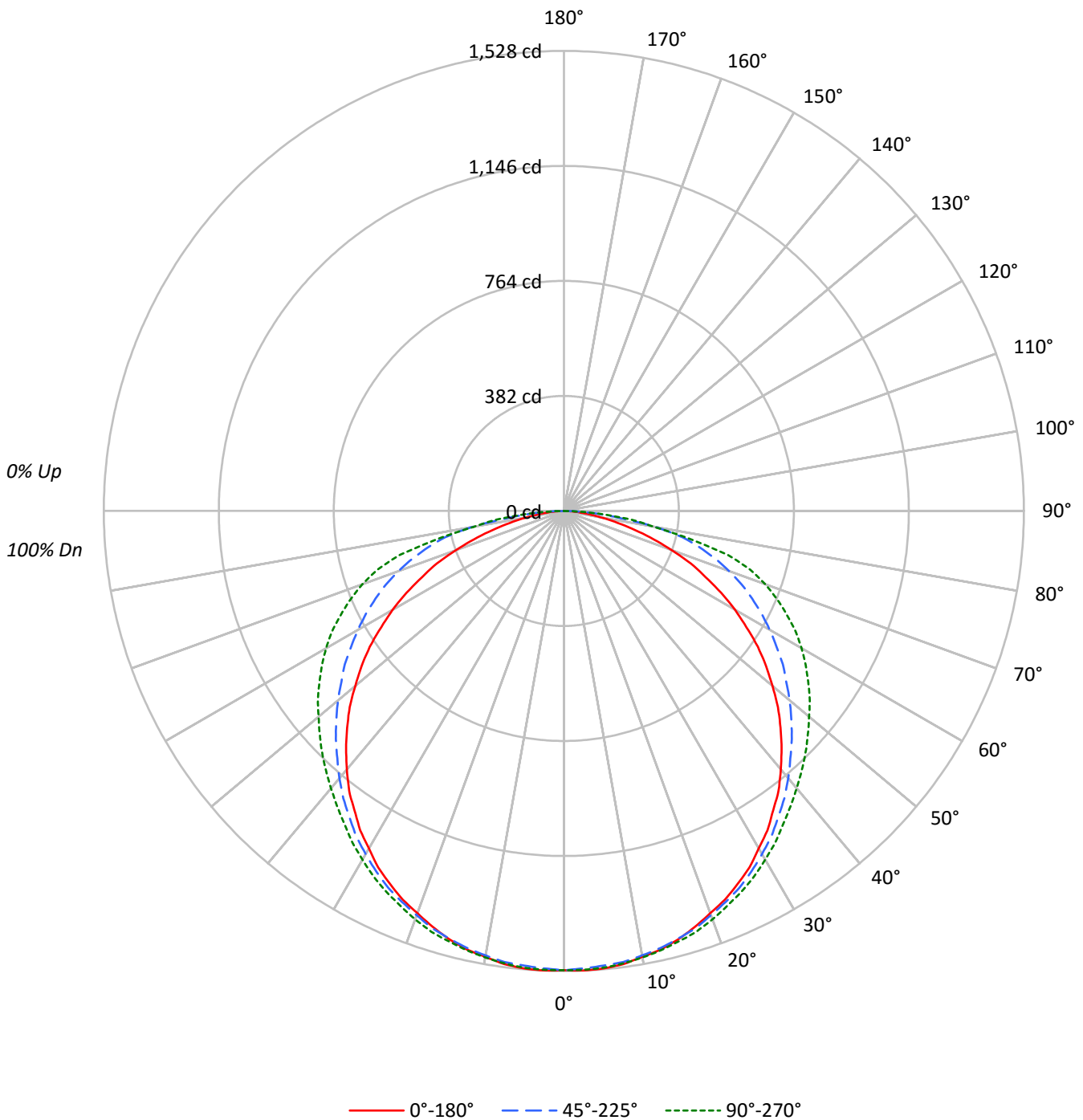
Input Watts (W): 64.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2052	2052	2052
5°	2060	2047	2057
10°	2054	2048	2057
15°	2051	2048	2061
20°	2036	2046	2067
25°	2029	2050	2071
30°	2011	2044	2078
35°	1992	2039	2086
40°	1969	2037	2113
45°	1936	2037	2161
50°	1893	2049	2226
55°	1845	2082	2325
60°	1767	2123	2453
65°	1654	2198	2604
70°	1505	2300	2801
75°	1276	2426	2926
80°	1007	2442	2367
85°	743	1857	2079



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.7	3.0
10°-20°	416.4	8.6
20°-30°	636.7	13.1
30°-40°	778.4	16.0
40°-50°	829.6	17.1
50°-60°	793.2	16.4
60°-70°	672.0	13.9
70°-80°	451.6	9.3
80°-90°	127.4	2.6
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°	1197.8	24.7
0°-40°	1976.2	40.7
0°-60°	3599.0	74.2
0°-90°	4850.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4850.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1525	1525	1525	1525	1525	
5°	1525	1523	1516	1523	1523	145
15°	1472	1472	1470	1482	1480	415
25°	1366	1371	1381	1393	1395	630
35°	1212	1222	1241	1265	1270	760
45°	1018	1034	1070	1116	1136	785
55°	787	816	888	958	991	701
65°	520	572	690	782	818	516
75°	245	334	467	546	563	263
85°	48	99	120	130	135	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1525.2	1525.2	1525.2	1525.2	1525.2
2.5°	1527.6	1527.6	1520.4	1525.2	1525.2
5°	1525.2	1522.8	1515.6	1522.8	1522.8
7.5°	1518.0	1515.6	1510.8	1518.0	1515.6
10°	1503.5	1503.5	1498.7	1505.9	1505.9
12.5°	1491.5	1489.1	1486.7	1496.3	1493.9
15°	1472.3	1472.3	1469.9	1481.9	1479.5
17.5°	1448.2	1450.6	1453.0	1462.6	1465.0
20°	1421.7	1426.6	1429.0	1443.4	1443.4
22.5°	1397.7	1400.1	1404.9	1419.3	1419.3
25°	1366.4	1371.2	1380.8	1392.9	1395.3
27.5°	1335.1	1337.5	1349.6	1366.4	1368.8
30°	1294.2	1301.5	1315.9	1335.1	1337.5
32.5°	1258.2	1265.4	1282.2	1301.5	1306.3
35°	1212.5	1222.1	1241.3	1265.4	1270.2
37.5°	1171.6	1178.8	1202.8	1229.3	1236.5
40°	1121.0	1135.5	1159.5	1190.8	1202.8
42.5°	1070.5	1085.0	1113.8	1154.7	1169.1
45°	1017.6	1034.4	1070.5	1116.2	1135.5
47.5°	964.7	983.9	1024.8	1077.7	1099.4
50°	904.5	928.6	979.1	1039.2	1063.3
52.5°	846.8	875.7	931.0	998.3	1029.6
55°	786.6	815.5	887.7	957.5	991.1
57.5°	719.3	757.8	837.2	916.6	952.6
60°	656.7	692.8	789.1	875.7	911.7
62.5°	589.4	637.5	740.9	832.4	868.4
65°	519.6	572.5	690.4	781.8	817.9
67.5°	457.1	514.8	639.9	731.3	767.4
70°	382.5	454.7	584.6	676.0	712.1
72.5°	312.7	392.1	526.8	615.8	649.5
75°	245.4	334.4	466.7	546.1	562.9
77.5°	182.8	276.7	404.2	437.8	425.8
80°	129.9	221.3	315.1	298.3	305.5
82.5°	84.2	168.4	194.9	221.3	228.5
85°	48.1	98.6	120.3	129.9	134.7
87.5°	21.7	36.1	48.1	48.1	45.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)