

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: P313769

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-RDP-CA08-W2A-U-5000K**

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: P313769
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-CA08-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET
Light Source: (336) 5000K 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: 4913.0 lumens
Efficiency: N/A
Efficacy: 74.6 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

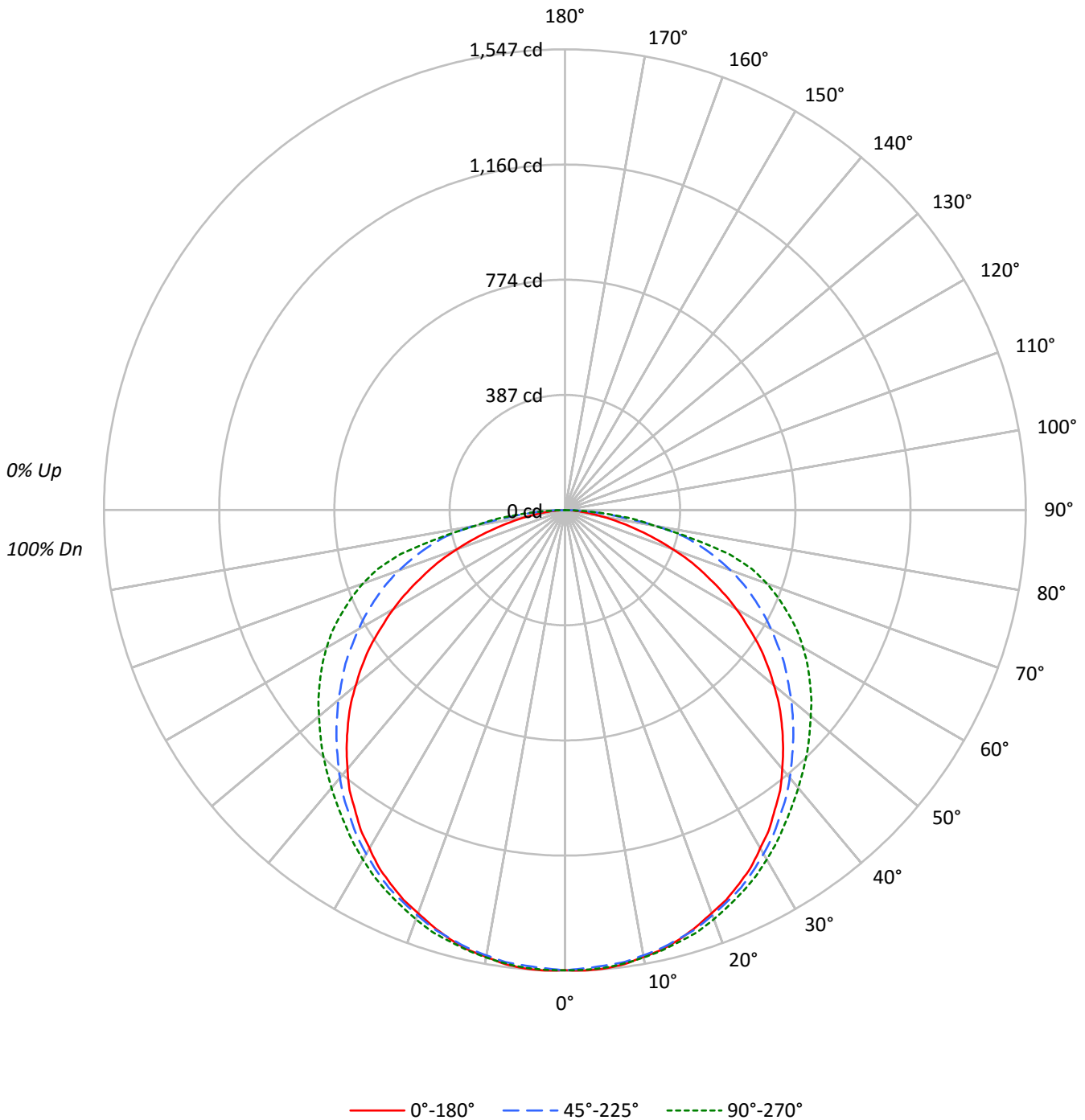
Input Watts (W): 65.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2079	2079	2079
5°	2087	2074	2083
10°	2081	2074	2084
15°	2077	2074	2088
20°	2062	2073	2093
25°	2055	2077	2098
30°	2037	2071	2105
35°	2017	2065	2113
40°	1995	2063	2140
45°	1961	2063	2189
50°	1918	2076	2255
55°	1869	2109	2355
60°	1790	2151	2485
65°	1676	2227	2638
70°	1524	2330	2838
75°	1292	2458	2964
80°	1020	2473	2398
85°	752	1880	2107



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.6	3.0
10°-20°	421.8	8.6
20°-30°	645.0	13.1
30°-40°	788.5	16.0
40°-50°	840.4	17.1
50°-60°	803.5	16.4
60°-70°	680.7	13.9
70°-80°	457.5	9.3
80°-90°	129.0	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°	1213.4	24.7
0°-40°	2001.9	40.7
0°-60°	3645.8	74.2
0°-90°	4913.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4913.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1545	1545	1545	1545	1545	
5°	1545	1543	1535	1543	1543	147
15°	1491	1491	1489	1501	1499	420
25°	1384	1389	1399	1411	1413	638
35°	1228	1238	1257	1282	1287	769
45°	1031	1048	1084	1131	1150	795
55°	797	826	899	970	1004	710
65°	526	580	699	792	828	523
75°	249	339	473	553	570	266
85°	49	100	122	132	136	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1545.0	1545.0	1545.0	1545.0	1545.0
2.5°	1547.4	1547.4	1540.1	1545.0	1545.0
5°	1545.0	1542.6	1535.3	1542.6	1542.6
7.5°	1537.7	1535.3	1530.4	1537.7	1535.3
10°	1523.1	1523.1	1518.2	1525.5	1525.5
12.5°	1510.9	1508.4	1506.0	1515.8	1513.3
15°	1491.4	1491.4	1488.9	1501.1	1498.7
17.5°	1467.0	1469.5	1471.9	1481.6	1484.1
20°	1440.2	1445.1	1447.5	1462.1	1462.1
22.5°	1415.8	1418.3	1423.2	1437.8	1437.8
25°	1384.2	1389.0	1398.8	1411.0	1413.4
27.5°	1352.5	1354.9	1367.1	1384.2	1386.6
30°	1311.1	1318.4	1333.0	1352.5	1354.9
32.5°	1274.5	1281.8	1298.9	1318.4	1323.2
35°	1228.2	1237.9	1257.4	1281.8	1286.7
37.5°	1186.8	1194.1	1218.5	1245.3	1252.6
40°	1135.6	1150.2	1174.6	1206.3	1218.5
42.5°	1084.4	1099.0	1128.3	1169.7	1184.3
45°	1030.8	1047.9	1084.4	1130.7	1150.2
47.5°	977.2	996.7	1038.1	1091.7	1113.7
50°	916.3	940.6	991.8	1052.7	1077.1
52.5°	857.8	887.0	943.1	1011.3	1043.0
55°	796.9	826.1	899.2	969.9	1004.0
57.5°	728.6	767.6	848.0	928.5	965.0
60°	665.3	701.8	799.3	887.0	923.6
62.5°	597.0	645.8	750.6	843.2	879.7
65°	526.4	580.0	699.4	792.0	828.5
67.5°	463.0	521.5	648.2	740.8	777.4
70°	387.5	460.6	592.2	684.8	721.3
72.5°	316.8	397.2	533.7	623.8	658.0
75°	248.6	338.7	472.8	553.2	570.2
77.5°	185.2	280.2	409.4	443.5	431.3
80°	131.6	224.2	319.2	302.2	309.5
82.5°	85.3	170.6	197.4	224.2	231.5
85°	48.7	99.9	121.8	131.6	136.5
87.5°	21.9	36.6	48.7	48.7	46.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)