

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: P314425

Luminaire Tested: **24FCZ2-55HE-UNV-L83050-S-CP125-W2A-U-3000K**

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: P314425
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: 24FCZ2-55HE-UNV-L83050-S-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (336) 3000K 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

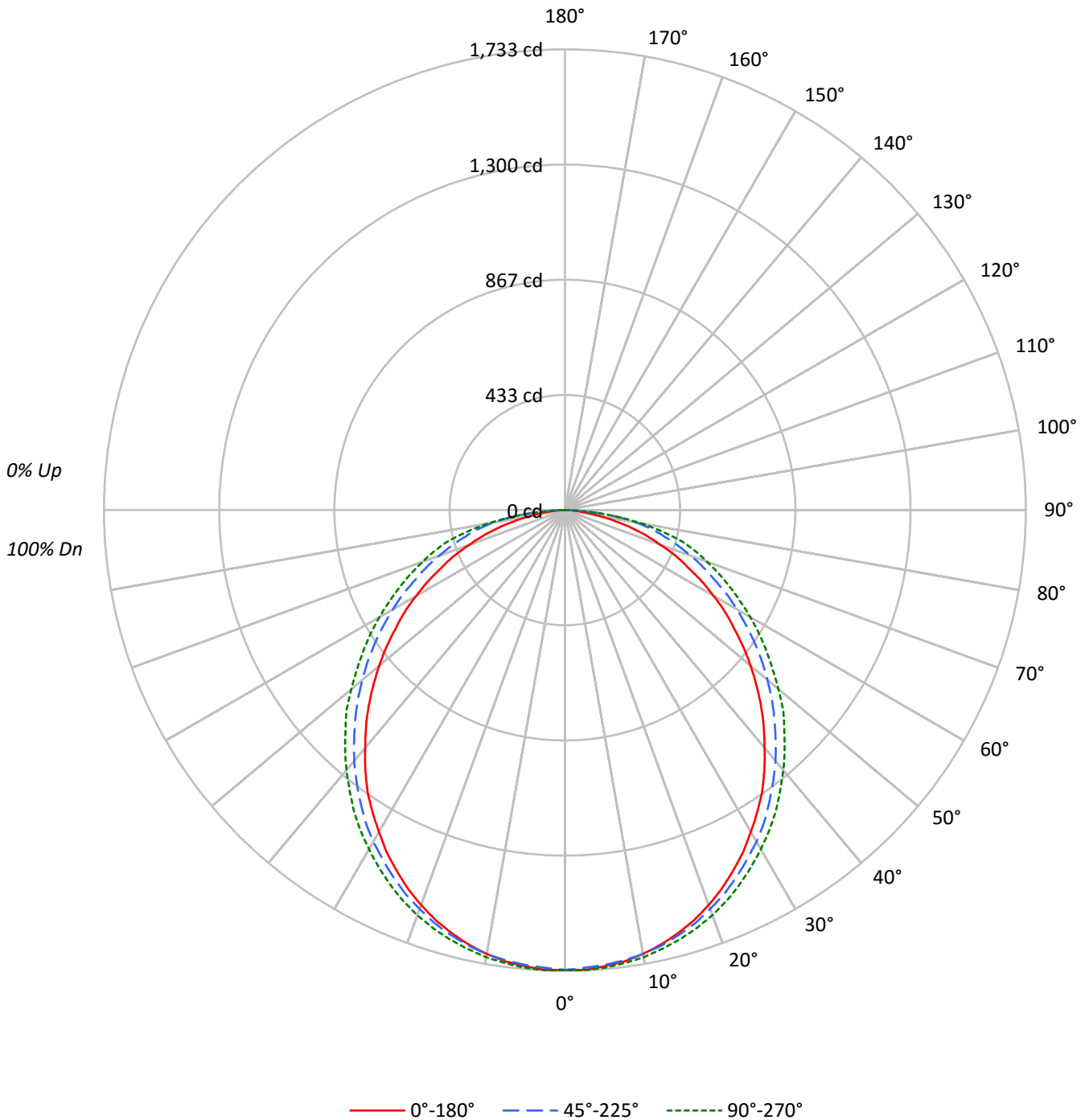
Lumens per Lamp: N/A
Luminaire Lumens: 4923.0 lumens
Efficiency: N/A
Efficacy: 114.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43
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	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°	2327	2327	2327
5°	2325	2319	2334
10°	2316	2316	2333
15°	2294	2305	2328
20°	2264	2286	2322
25°	2222	2263	2307
30°	2172	2238	2289
35°	2124	2201	2270
40°	2052	2164	2244
45°	1985	2121	2220
50°	1908	2082	2193
55°	1823	2043	2171
60°	1738	2012	2167
65°	1628	1976	2181
70°	1507	1987	2239
75°	1350	2024	2365
80°	1090	2145	2314
85°	821	1883	1834



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.7	3.3
10°-20°	467.8	9.5
20°-30°	703.3	14.3
30°-40°	837.7	17.0
40°-50°	857.3	17.4
50°-60°	771.9	15.7
60°-70°	606.2	12.3
70°-80°	393.4	8.0
80°-90°	121.7	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°	1334.8	27.1
0°-40°	2172.5	44.1
0°-60°	3801.7	77.2
0°-90°	4923.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4923.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1730	1730	1730	1730	1730	
5°	1722	1725	1717	1726	1728	164
15°	1647	1651	1654	1668	1672	464
25°	1496	1509	1525	1550	1554	689
35°	1293	1309	1340	1373	1382	807
45°	1043	1068	1115	1157	1166	804
55°	777	812	871	916	926	697
65°	511	550	621	672	685	509
75°	260	310	389	442	455	275
85°	53	98	122	119	119	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1729.5	1729.5	1729.5	1729.5	1729.5
2.5°	1731.0	1731.0	1723.2	1731.0	1732.6
5°	1721.7	1724.8	1717.0	1726.4	1727.9
7.5°	1712.3	1712.3	1707.6	1717.0	1718.5
10°	1695.1	1696.6	1695.1	1706.0	1707.6
12.5°	1673.2	1676.3	1677.9	1688.8	1690.4
15°	1646.6	1651.3	1654.4	1668.5	1671.6
17.5°	1616.9	1621.6	1629.4	1645.0	1648.2
20°	1580.9	1587.2	1596.6	1616.9	1621.6
22.5°	1541.8	1548.1	1563.7	1582.5	1590.3
25°	1496.5	1509.0	1524.6	1549.7	1554.3
27.5°	1451.1	1462.1	1482.4	1509.0	1515.3
30°	1398.0	1415.2	1440.2	1466.8	1473.0
32.5°	1346.4	1363.6	1393.3	1421.4	1429.2
35°	1293.2	1308.8	1340.1	1373.0	1382.3
37.5°	1232.2	1252.5	1286.9	1319.8	1329.2
40°	1168.1	1193.1	1232.2	1266.6	1277.6
42.5°	1107.1	1133.7	1172.8	1210.3	1222.8
45°	1043.0	1068.0	1114.9	1157.2	1166.5
47.5°	977.3	1005.5	1055.5	1097.7	1113.4
50°	911.7	941.4	994.5	1038.3	1047.7
52.5°	846.0	877.3	933.5	980.5	985.1
55°	777.2	811.6	871.0	916.3	925.7
57.5°	714.6	744.3	808.4	855.4	866.3
60°	645.8	678.7	747.5	791.2	805.3
62.5°	580.1	614.5	686.5	730.3	742.8
65°	511.3	550.4	620.8	672.4	684.9
67.5°	451.9	489.4	564.5	614.5	627.1
70°	383.1	425.3	505.1	556.7	569.2
72.5°	323.7	367.5	447.2	497.3	516.0
75°	259.6	309.6	389.4	442.5	455.0
77.5°	197.0	254.9	336.2	376.9	376.9
80°	140.7	201.7	276.8	295.5	298.7
82.5°	92.3	151.7	204.8	203.3	203.3
85°	53.2	98.5	122.0	118.8	118.8
87.5°	20.3	40.7	43.8	43.8	42.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)