

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: P314051

Luminaire Tested: **24FCZ2-55HE-UNV-L83050-CP125-W2A-U-3500K**

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: P314051
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
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-CP125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 3500K 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: 4958.0 lumens
Efficiency: N/A
Efficacy: 115.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

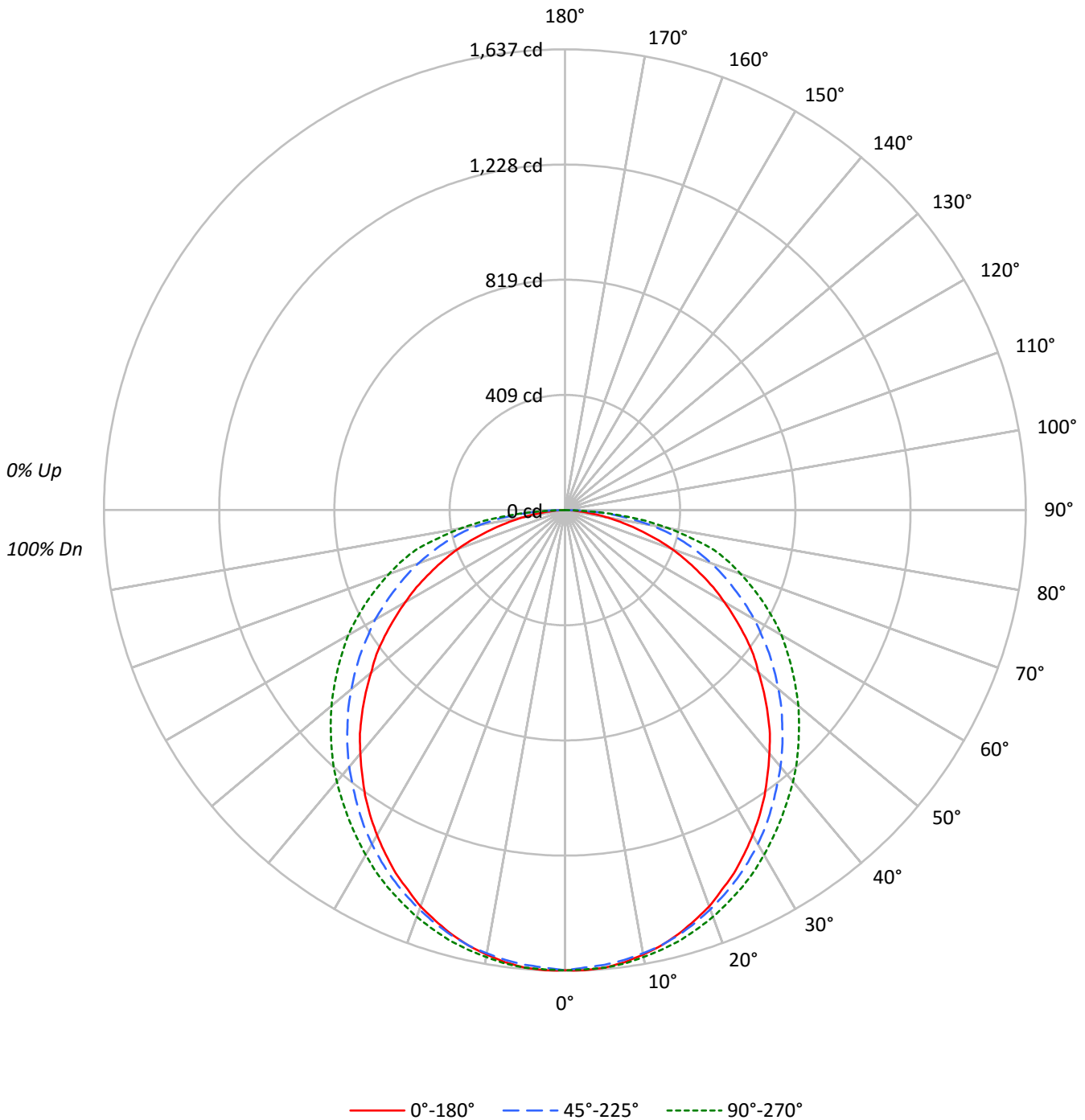
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2200	2200	2200
5°	2204	2191	2204
10°	2191	2184	2203
15°	2172	2177	2204
20°	2146	2162	2202
25°	2112	2147	2200
30°	2073	2129	2198
35°	2032	2108	2199
40°	1985	2092	2213
45°	1937	2078	2232
50°	1880	2073	2266
55°	1833	2076	2311
60°	1762	2094	2390
65°	1681	2116	2477
70°	1592	2181	2615
75°	1420	2275	2856
80°	1211	2409	2919
85°	863	2387	2793



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	154.7	3.1
10°-20°	442.5	8.9
20°-30°	668.3	13.5
30°-40°	805.5	16.2
40°-50°	845.6	17.1
50°-60°	791.1	16.0
60°-70°	653.3	13.2
70°-80°	445.2	9.0
80°-90°	151.8	3.1
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°	1265.5	25.5
0°-40°	2071.0	41.8
0°-60°	3707.7	74.8
0°-90°	4958.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4958.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1635	1635	1635	1635	1635	
5°	1632	1630	1622	1632	1632	155
15°	1559	1561	1563	1579	1582	440
25°	1423	1430	1446	1474	1482	655
35°	1237	1250	1283	1326	1339	773
45°	1018	1040	1092	1152	1173	785
55°	781	813	885	957	985	697
65°	528	572	665	748	778	524
75°	273	336	438	520	549	291
85°	56	110	155	174	181	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1635.1	1635.1	1635.1	1635.1	1635.1
2.5°	1636.8	1635.1	1626.9	1635.1	1633.5
5°	1631.8	1630.2	1621.9	1631.8	1631.8
7.5°	1620.3	1620.3	1612.1	1623.6	1625.2
10°	1603.9	1603.9	1598.9	1612.1	1612.1
12.5°	1584.1	1584.1	1584.1	1597.3	1598.9
15°	1559.4	1561.1	1562.7	1579.2	1582.5
17.5°	1529.8	1533.1	1538.1	1557.8	1561.1
20°	1498.6	1501.9	1510.1	1533.1	1538.1
22.5°	1459.1	1467.3	1478.8	1505.2	1510.1
25°	1422.9	1429.5	1445.9	1473.9	1482.1
27.5°	1378.5	1388.4	1409.7	1439.4	1450.9
30°	1334.1	1343.9	1370.3	1404.8	1414.7
32.5°	1286.4	1301.2	1329.1	1365.3	1376.8
35°	1237.0	1250.2	1283.1	1325.8	1339.0
37.5°	1182.7	1200.8	1237.0	1283.1	1299.5
40°	1130.1	1149.8	1191.0	1240.3	1260.1
42.5°	1077.5	1097.2	1143.3	1199.2	1218.9
45°	1018.2	1039.6	1092.3	1151.5	1172.9
47.5°	959.0	985.3	1042.9	1105.4	1128.5
50°	898.2	927.8	990.3	1056.1	1082.4
52.5°	843.9	871.8	937.6	1008.4	1033.0
55°	781.4	812.6	885.0	957.4	985.3
57.5°	717.2	751.8	829.1	908.0	936.0
60°	654.7	692.5	778.1	857.0	888.3
62.5°	593.8	631.7	720.5	802.7	834.0
65°	528.0	572.5	664.6	748.5	778.1
67.5°	465.5	513.2	610.3	692.5	722.1
70°	404.7	450.7	554.4	635.0	664.6
72.5°	338.9	391.5	495.1	579.0	610.3
75°	273.1	335.6	437.6	519.8	549.4
77.5°	212.2	276.4	378.3	445.8	460.6
80°	156.3	222.1	310.9	358.6	376.7
82.5°	100.3	166.1	236.9	271.4	286.2
85°	55.9	110.2	154.6	174.4	180.9
87.5°	23.0	47.7	62.5	70.7	70.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)