

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: P314054

Luminaire Tested: **24FCZ2-55HE-UNV-L83050-CP125-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: P314054
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-5000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB 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: 5255.0 lumens
Efficiency: N/A
Efficacy: 116.3 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

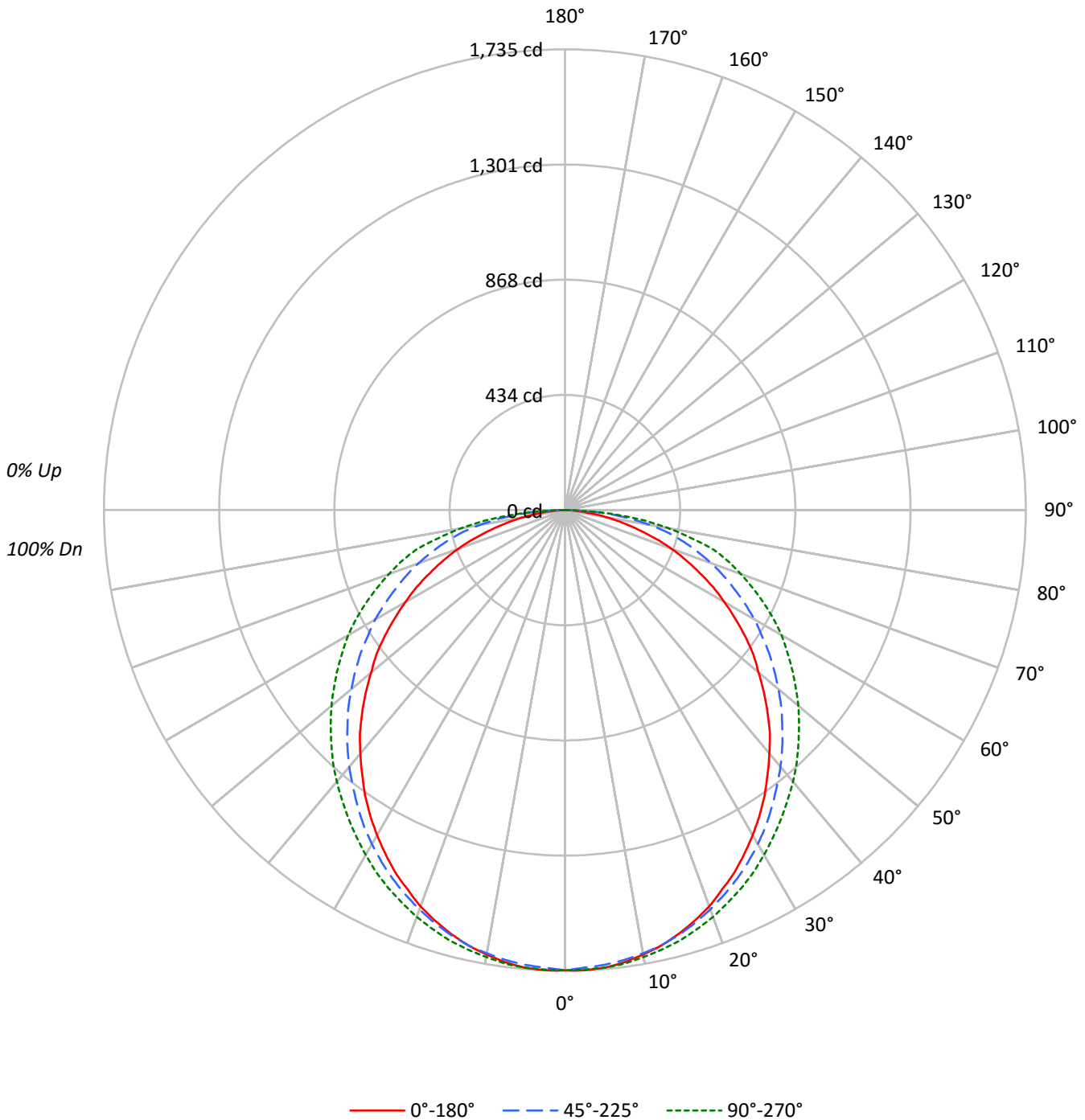
Input Watts (W): 45.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2332	2332	2332
5°	2336	2322	2336
10°	2322	2315	2334
15°	2302	2307	2336
20°	2274	2292	2334
25°	2239	2275	2332
30°	2197	2256	2330
35°	2154	2234	2331
40°	2104	2217	2346
45°	2054	2203	2365
50°	1993	2197	2401
55°	1943	2200	2450
60°	1867	2219	2534
65°	1782	2243	2626
70°	1687	2312	2771
75°	1504	2411	3027
80°	1283	2553	3094
85°	915	2530	2961



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	164.0	3.1
10°-20°	469.0	8.9
20°-30°	708.3	13.5
30°-40°	853.7	16.2
40°-50°	896.2	17.1
50°-60°	838.5	16.0
60°-70°	692.4	13.2
70°-80°	471.9	9.0
80°-90°	160.9	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°	1341.3	25.5
0°-40°	2195.0	41.8
0°-60°	3929.8	74.8
0°-90°	5255.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5255.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1733	1733	1733	1733	1733	
5°	1730	1728	1719	1730	1730	164
15°	1653	1655	1656	1674	1677	466
25°	1508	1515	1532	1562	1571	694
35°	1311	1325	1360	1405	1419	819
45°	1079	1102	1158	1220	1243	832
55°	828	861	938	1015	1044	739
65°	560	607	704	793	825	555
75°	289	356	464	551	582	309
85°	59	117	164	185	192	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1733.1	1733.1	1733.1	1733.1	1733.1
2.5°	1734.8	1733.1	1724.3	1733.1	1731.3
5°	1729.6	1727.8	1719.1	1729.6	1729.6
7.5°	1717.4	1717.4	1708.6	1720.8	1722.6
10°	1699.9	1699.9	1694.7	1708.6	1708.6
12.5°	1679.0	1679.0	1679.0	1693.0	1694.7
15°	1652.9	1654.6	1656.3	1673.8	1677.3
17.5°	1621.5	1625.0	1630.2	1651.1	1654.6
20°	1588.3	1591.8	1600.5	1625.0	1630.2
22.5°	1546.5	1555.2	1567.4	1595.3	1600.5
25°	1508.1	1515.1	1532.5	1562.2	1570.9
27.5°	1461.1	1471.5	1494.2	1525.6	1537.8
30°	1414.0	1424.5	1452.3	1489.0	1499.4
32.5°	1363.4	1379.1	1408.8	1447.1	1459.3
35°	1311.1	1325.1	1359.9	1405.3	1419.2
37.5°	1253.6	1272.8	1311.1	1359.9	1377.4
40°	1197.8	1218.7	1262.3	1314.6	1335.5
42.5°	1142.0	1162.9	1211.7	1271.0	1291.9
45°	1079.2	1101.9	1157.7	1220.5	1243.1
47.5°	1016.5	1044.4	1105.4	1171.6	1196.1
50°	952.0	983.3	1049.6	1119.3	1147.2
52.5°	894.4	924.1	993.8	1068.8	1094.9
55°	828.2	861.3	938.0	1014.7	1044.4
57.5°	760.2	796.8	878.7	962.4	992.1
60°	693.9	734.0	824.7	908.4	941.5
62.5°	629.4	669.5	763.7	850.8	884.0
65°	559.7	606.7	704.4	793.3	824.7
67.5°	493.4	544.0	646.8	734.0	765.4
70°	428.9	477.7	587.6	673.0	704.4
72.5°	359.2	415.0	524.8	613.7	646.8
75°	289.4	355.7	463.8	551.0	582.3
77.5°	224.9	292.9	401.0	472.5	488.2
80°	165.6	235.4	329.5	380.1	399.3
82.5°	106.4	176.1	251.1	287.7	303.4
85°	59.3	116.8	163.9	184.8	191.8
87.5°	24.4	50.6	66.3	75.0	75.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)