

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: P314050

Luminaire Tested: **24FCZ2-55HE-UNV-L83050-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: P314050
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-3000K
Description: 2'X4' TROFFER LED MODULE, RIBBED 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: 4685.0 lumens
Efficiency: N/A
Efficacy: 109.0 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

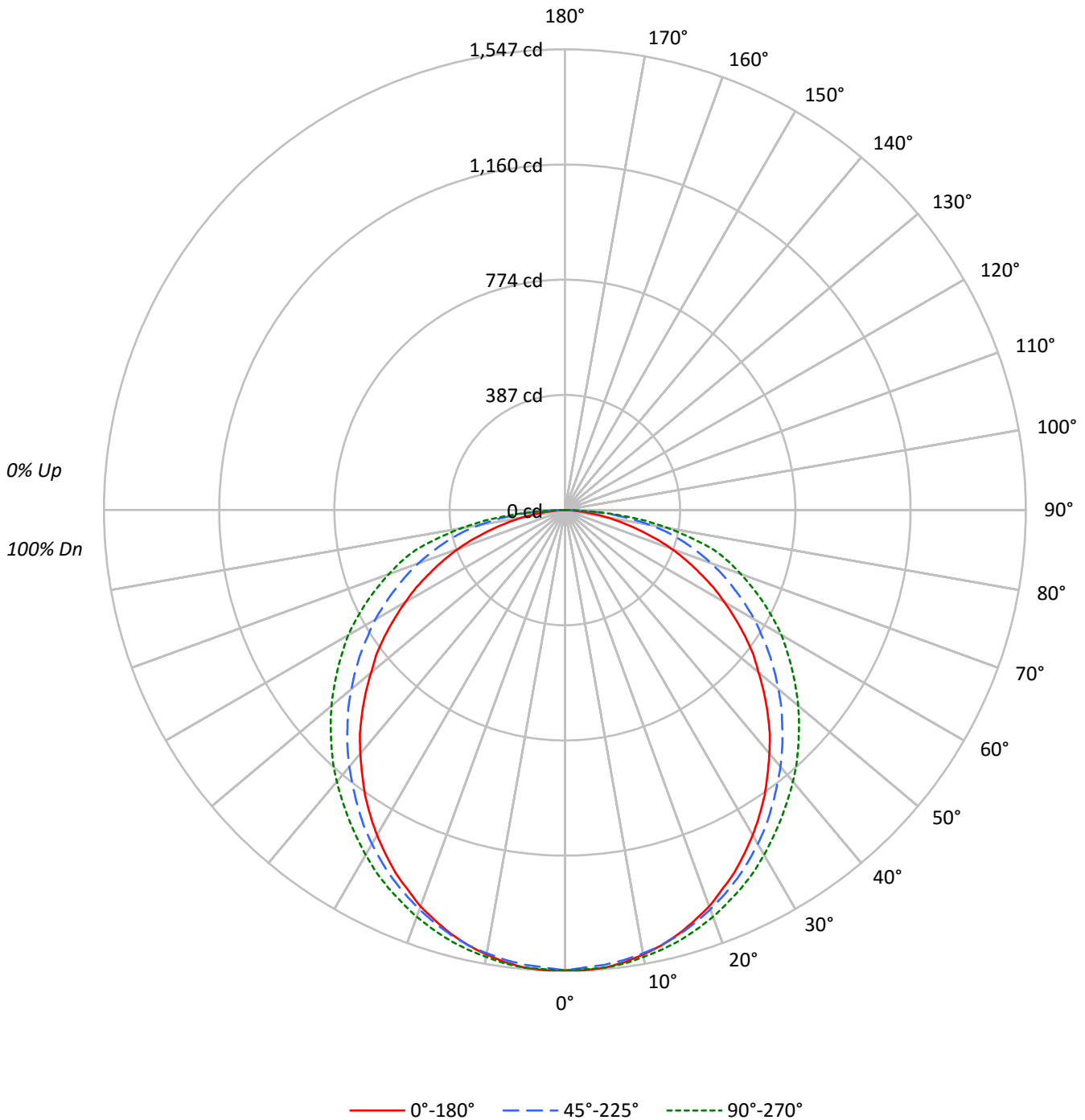
Input Watts (W): 43
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2079	2079	2079
5°	2083	2070	2083
10°	2071	2064	2081
15°	2053	2057	2083
20°	2028	2043	2081
25°	1996	2028	2079
30°	1959	2012	2077
35°	1920	1991	2078
40°	1876	1977	2091
45°	1831	1964	2109
50°	1777	1959	2141
55°	1732	1962	2184
60°	1665	1978	2259
65°	1589	1999	2341
70°	1504	2061	2471
75°	1341	2150	2699
80°	1144	2276	2758
85°	815	2255	2640



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.2	3.1
10°-20°	418.1	8.9
20°-30°	631.5	13.5
30°-40°	761.1	16.2
40°-50°	799.0	17.1
50°-60°	747.5	16.0
60°-70°	617.3	13.2
70°-80°	420.7	9.0
80°-90°	143.5	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°	1195.8	25.5
0°-40°	1957.0	41.8
0°-60°	3503.5	74.8
0°-90°	4685.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4685.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1545	1545	1545	1545	1545	
5°	1542	1540	1533	1542	1542	146
15°	1474	1475	1477	1492	1495	415
25°	1345	1351	1366	1393	1400	619
35°	1169	1181	1212	1253	1265	730
45°	962	982	1032	1088	1108	742
55°	738	768	836	905	931	659
65°	499	541	628	707	735	495
75°	258	317	414	491	519	275
85°	53	104	146	165	171	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1545.1	1545.1	1545.1	1545.1	1545.1
2.5°	1546.6	1545.1	1537.3	1545.1	1543.5
5°	1542.0	1540.4	1532.6	1542.0	1542.0
7.5°	1531.1	1531.1	1523.3	1534.2	1535.7
10°	1515.5	1515.5	1510.9	1523.3	1523.3
12.5°	1496.9	1496.9	1496.9	1509.3	1510.9
15°	1473.6	1475.1	1476.7	1492.2	1495.3
17.5°	1445.6	1448.7	1453.4	1472.0	1475.1
20°	1416.1	1419.2	1426.9	1448.7	1453.4
22.5°	1378.8	1386.5	1397.4	1422.3	1426.9
25°	1344.6	1350.8	1366.3	1392.7	1400.5
27.5°	1302.6	1311.9	1332.1	1360.1	1371.0
30°	1260.6	1269.9	1294.8	1327.5	1336.8
32.5°	1215.5	1229.5	1256.0	1290.2	1301.0
35°	1168.9	1181.3	1212.4	1252.8	1265.3
37.5°	1117.6	1134.7	1168.9	1212.4	1228.0
40°	1067.9	1086.5	1125.4	1172.0	1190.7
42.5°	1018.1	1036.8	1080.3	1133.2	1151.8
45°	962.2	982.4	1032.1	1088.1	1108.3
47.5°	906.2	931.1	985.5	1044.6	1066.3
50°	848.7	876.7	935.7	997.9	1022.8
52.5°	797.4	823.8	886.0	952.8	976.2
55°	738.3	767.9	836.3	904.7	931.1
57.5°	677.7	710.4	783.4	858.0	884.5
60°	618.7	654.4	735.2	809.8	839.4
62.5°	561.1	596.9	680.8	758.5	788.1
65°	499.0	540.9	628.0	707.3	735.2
67.5°	439.9	485.0	576.7	654.4	682.4
70°	382.4	425.9	523.8	600.0	628.0
72.5°	320.2	369.9	467.9	547.1	576.7
75°	258.0	317.1	413.5	491.2	519.2
77.5°	200.5	261.1	357.5	421.2	435.2
80°	147.7	209.8	293.8	338.9	356.0
82.5°	94.8	157.0	223.8	256.5	270.5
85°	52.8	104.1	146.1	164.8	171.0
87.5°	21.8	45.1	59.1	66.8	66.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)