

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: P310949

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-CA125-W2A-U-2700K**

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: P310949
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-L82765-CA125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 2700K 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: 4640.0 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

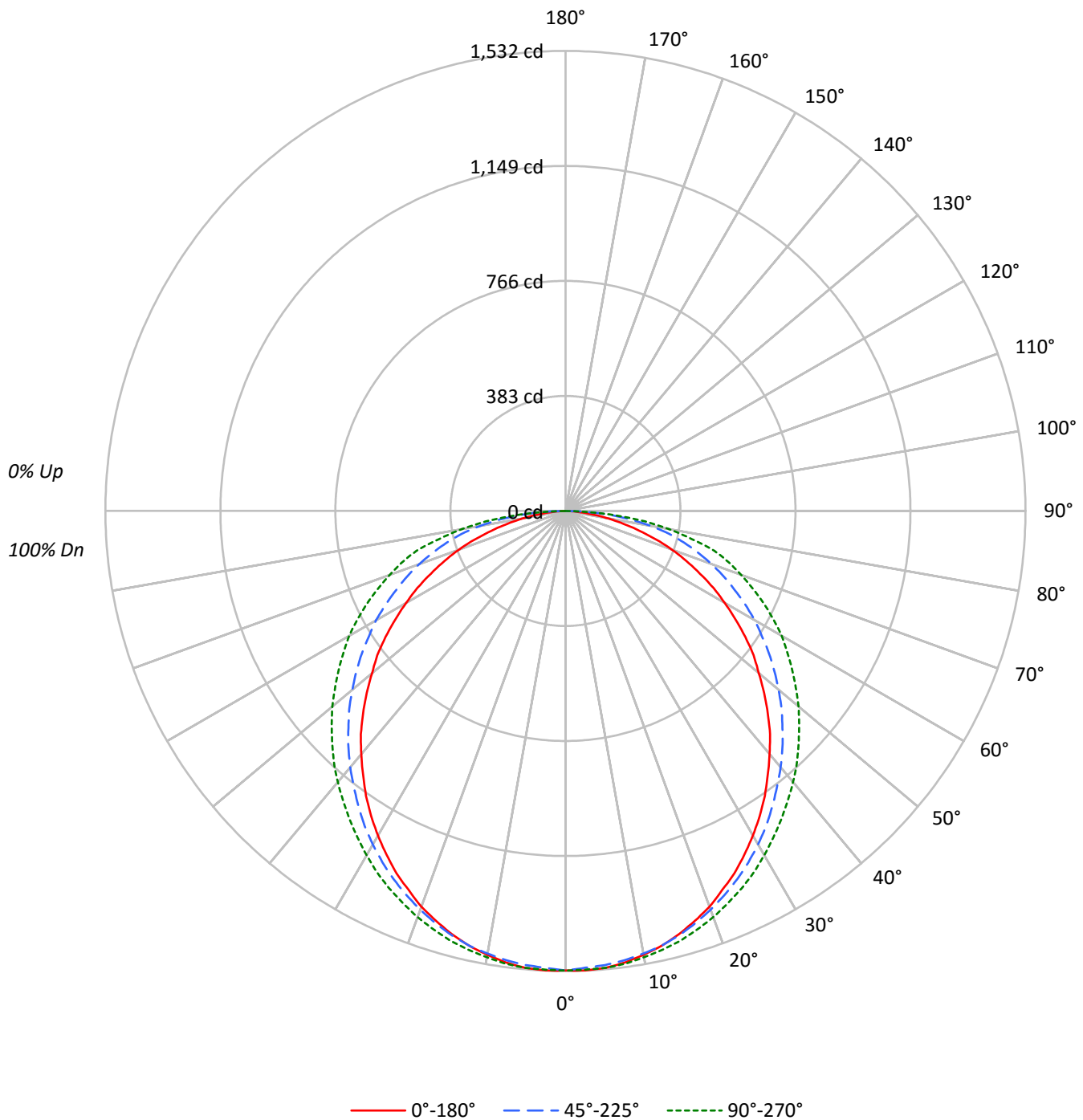
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	2059	2059	2059
5°	2063	2050	2063
10°	2051	2044	2061
15°	2033	2037	2063
20°	2008	2023	2061
25°	1977	2009	2059
30°	1940	1992	2057
35°	1902	1972	2058
40°	1858	1958	2071
45°	1813	1945	2089
50°	1759	1940	2120
55°	1715	1943	2163
60°	1649	1960	2237
65°	1573	1980	2318
70°	1490	2041	2447
75°	1329	2129	2673
80°	1133	2255	2731
85°	807	2234	2614



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.8	3.1
10°-20°	414.1	8.9
20°-30°	625.4	13.5
30°-40°	753.8	16.2
40°-50°	791.4	17.1
50°-60°	740.4	16.0
60°-70°	611.4	13.2
70°-80°	416.6	9.0
80°-90°	142.1	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°	1184.4	25.5
0°-40°	1938.2	41.8
0°-60°	3469.9	74.8
0°-90°	4640.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4640.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1530	1530	1530	1530	1530	
5°	1527	1526	1518	1527	1527	145
15°	1459	1461	1462	1478	1481	411
25°	1332	1338	1353	1379	1387	613
35°	1158	1170	1201	1241	1253	723
45°	953	973	1022	1078	1098	735
55°	731	760	828	896	922	653
65°	494	536	622	700	728	490
75°	256	314	410	486	514	272
85°	52	103	145	163	169	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1530.2	1530.2	1530.2	1530.2	1530.2
2.5°	1531.8	1530.2	1522.5	1530.2	1528.7
5°	1527.2	1525.6	1517.9	1527.2	1527.2
7.5°	1516.4	1516.4	1508.7	1519.5	1521.0
10°	1501.0	1501.0	1496.4	1508.7	1508.7
12.5°	1482.5	1482.5	1482.5	1494.8	1496.4
15°	1459.4	1461.0	1462.5	1477.9	1481.0
17.5°	1431.7	1434.8	1439.4	1457.9	1461.0
20°	1402.5	1405.5	1413.2	1434.8	1439.4
22.5°	1365.5	1373.2	1384.0	1408.6	1413.2
25°	1331.6	1337.8	1353.2	1379.4	1387.1
27.5°	1290.1	1299.3	1319.3	1347.0	1357.8
30°	1248.5	1257.7	1282.4	1314.7	1323.9
32.5°	1203.9	1217.7	1243.9	1277.8	1288.5
35°	1157.7	1170.0	1200.8	1240.8	1253.1
37.5°	1106.9	1123.8	1157.7	1200.8	1216.2
40°	1057.6	1076.1	1114.6	1160.8	1179.2
42.5°	1008.4	1026.8	1069.9	1122.3	1140.7
45°	952.9	972.9	1022.2	1077.6	1097.6
47.5°	897.5	922.1	976.0	1034.5	1056.1
50°	840.5	868.3	926.8	988.3	1013.0
52.5°	789.7	815.9	877.5	943.7	966.8
55°	731.2	760.5	828.2	896.0	922.1
57.5°	671.2	703.5	775.9	849.8	876.0
60°	612.7	648.1	728.2	802.1	831.3
62.5°	555.7	591.2	674.3	751.3	780.5
65°	494.2	535.7	621.9	700.5	728.2
67.5°	435.7	480.3	571.1	648.1	675.8
70°	378.7	421.8	518.8	594.2	621.9
72.5°	317.1	366.4	463.4	541.9	571.1
75°	255.6	314.1	409.5	486.5	514.2
77.5°	198.6	258.6	354.1	417.2	431.1
80°	146.2	207.8	291.0	335.6	352.5
82.5°	93.9	155.5	221.7	254.0	267.9
85°	52.3	103.1	144.7	163.2	169.3
87.5°	21.6	44.6	58.5	66.2	66.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)