

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: P310966

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-CP125-W2A-U-6500K**

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: P310966
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-CP125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 6500K 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: 5182.0 lumens
Efficiency: N/A
Efficacy: 115.2 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

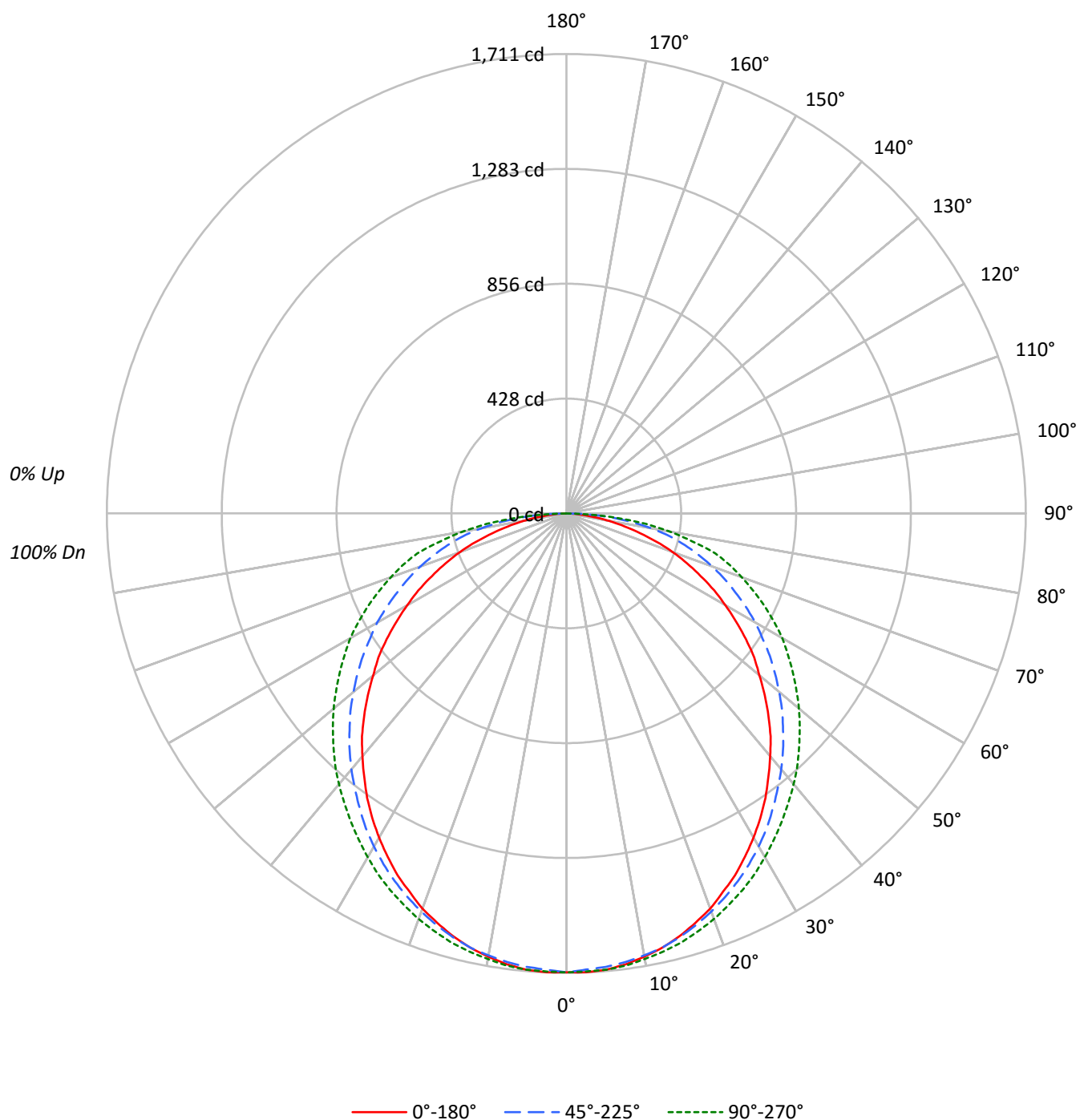
Input Watts (W): 45
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	108	103	98	94	105	100	96	92		96	92	89		92	89	87		88	86	84
2	98	89	81	75	95	87	80	74		83	78	73		80	75	71		77	73	69
3	89	77	69	62	86	76	68	61		73	66	60		70	64	59		67	62	58
4	81	68	59	52	79	67	58	52		64	57	51		62	56	50		60	54	50
5	74	61	52	45	72	60	51	44		58	50	44		56	49	43		54	48	43
6	69	55	46	39	67	54	45	39		52	44	38		50	43	38		49	42	38
7	64	50	41	34	62	49	40	34		47	39	34		46	39	34		44	38	33
8	59	45	37	31	57	45	36	30		43	36	30		42	35	30		41	34	30
9	55	41	33	27	54	41	33	27		40	32	27		39	32	27		38	31	27
10	52	38	30	25	50	38	30	25		37	30	25		36	29	25		35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2299	2299	2299
5°	2303	2290	2303
10°	2290	2283	2302
15°	2270	2275	2304
20°	2243	2260	2302
25°	2208	2244	2300
30°	2166	2225	2297
35°	2124	2203	2299
40°	2075	2186	2313
45°	2025	2172	2333
50°	1965	2166	2368
55°	1916	2170	2416
60°	1841	2188	2498
65°	1757	2211	2589
70°	1664	2279	2733
75°	1484	2377	2985
80°	1265	2517	3051
85°	903	2495	2919



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.7	3.1
10°-20°	462.5	8.9
20°-30°	698.5	13.5
30°-40°	841.9	16.2
40°-50°	883.8	17.1
50°-60°	826.8	16.0
60°-70°	682.8	13.2
70°-80°	465.3	9.0
80°-90°	158.7	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°	1322.7	25.5
0°-40°	2164.6	41.8
0°-60°	3875.2	74.8
0°-90°	5182.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5182.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1709	1709	1709	1709	1709	
5°	1706	1704	1695	1706	1706	162
15°	1630	1632	1633	1650	1654	459
25°	1487	1494	1511	1540	1549	684
35°	1293	1307	1341	1386	1400	808
45°	1064	1087	1142	1204	1226	821
55°	817	849	925	1001	1030	729
65°	552	598	695	782	813	547
75°	285	351	457	543	574	304
85°	58	115	162	182	189	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1709.0	1709.0	1709.0	1709.0	1709.0
2.5°	1710.7	1709.0	1700.4	1709.0	1707.3
5°	1705.5	1703.8	1695.2	1705.5	1705.5
7.5°	1693.5	1693.5	1684.9	1696.9	1698.7
10°	1676.3	1676.3	1671.2	1684.9	1684.9
12.5°	1655.7	1655.7	1655.7	1669.4	1671.2
15°	1629.9	1631.6	1633.3	1650.5	1654.0
17.5°	1598.9	1602.4	1607.5	1628.2	1631.6
20°	1566.3	1569.7	1578.3	1602.4	1607.5
22.5°	1525.0	1533.6	1545.6	1573.2	1578.3
25°	1487.2	1494.1	1511.3	1540.5	1549.1
27.5°	1440.8	1451.1	1473.4	1504.4	1516.4
30°	1394.3	1404.7	1432.2	1468.3	1478.6
32.5°	1344.5	1360.0	1389.2	1427.0	1439.0
35°	1292.9	1306.7	1341.0	1385.8	1399.5
37.5°	1236.2	1255.1	1292.9	1341.0	1358.2
40°	1181.2	1201.8	1244.8	1296.3	1317.0
42.5°	1126.1	1146.8	1194.9	1253.4	1274.0
45°	1064.2	1086.6	1141.6	1203.5	1225.9
47.5°	1002.3	1029.9	1090.0	1155.4	1179.4
50°	938.7	969.7	1035.0	1103.8	1131.3
52.5°	882.0	911.2	980.0	1053.9	1079.7
55°	816.7	849.3	925.0	1000.6	1029.9
57.5°	749.6	785.7	866.5	949.1	978.3
60°	684.3	723.8	813.2	895.8	928.4
62.5°	620.7	660.2	753.1	839.0	871.7
65°	551.9	598.3	694.6	782.3	813.2
67.5°	486.6	536.4	637.9	723.8	754.8
70°	422.9	471.1	579.4	663.6	694.6
72.5°	354.2	409.2	517.5	605.2	637.9
75°	285.4	350.7	457.3	543.3	574.2
77.5°	221.8	288.8	395.4	465.9	481.4
80°	163.3	232.1	324.9	374.8	393.7
82.5°	104.9	173.6	247.6	283.7	299.2
85°	58.5	115.2	161.6	182.2	189.1
87.5°	24.1	49.9	65.3	73.9	73.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)