

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: P310783

Luminaire Tested: **24FCZ2-45HE-UNV-L82765-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: P310783
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: 24FCZ2-45HE-UNV-L82765-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: 4125.0 lumens
Efficiency: N/A
Efficacy: 119.2 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

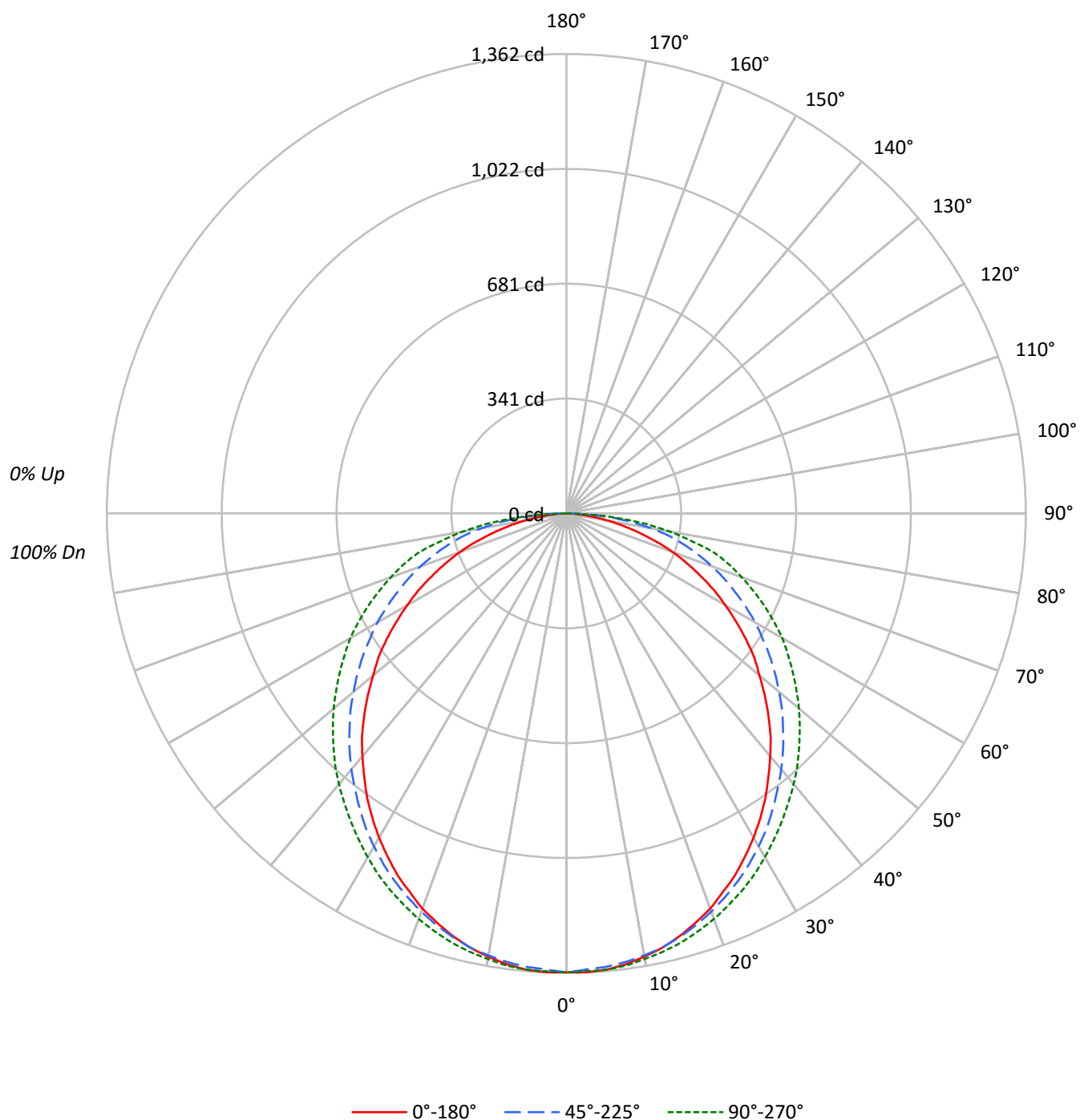
Input Watts (W): 34.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1830	1830	1830
5°	1834	1823	1834
10°	1823	1818	1832
15°	1807	1811	1834
20°	1785	1799	1832
25°	1757	1786	1831
30°	1724	1771	1829
35°	1691	1753	1830
40°	1651	1740	1841
45°	1612	1729	1857
50°	1564	1725	1885
55°	1525	1727	1923
60°	1466	1742	1989
65°	1399	1760	2061
70°	1325	1814	2175
75°	1181	1892	2376
80°	1007	2005	2428
85°	718	1985	2323



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.7	3.1
10°-20°	368.1	8.9
20°-30°	556.0	13.5
30°-40°	670.1	16.2
40°-50°	703.5	17.1
50°-60°	658.2	16.0
60°-70°	543.5	13.2
70°-80°	370.4	9.0
80°-90°	126.3	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°	1052.9	25.5
0°-40°	1723.0	41.8
0°-60°	3084.8	74.8
0°-90°	4125.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4125.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1360	1360	1360	1360	1360	
5°	1358	1356	1349	1358	1358	129
15°	1297	1299	1300	1314	1317	366
25°	1184	1189	1203	1226	1233	545
35°	1029	1040	1068	1103	1114	643
45°	847	865	909	958	976	653
55°	650	676	736	796	820	580
65°	439	476	553	623	647	436
75°	227	279	364	432	457	242
85°	46	92	129	145	150	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1360.4	1360.4	1360.4	1360.4	1360.4
2.5°	1361.8	1360.4	1353.5	1360.4	1359.0
5°	1357.7	1356.3	1349.4	1357.7	1357.7
7.5°	1348.1	1348.1	1341.2	1350.8	1352.2
10°	1334.4	1334.4	1330.3	1341.2	1341.2
12.5°	1318.0	1318.0	1318.0	1328.9	1330.3
15°	1297.4	1298.8	1300.2	1313.9	1316.6
17.5°	1272.8	1275.5	1279.6	1296.1	1298.8
20°	1246.8	1249.5	1256.4	1275.5	1279.6
22.5°	1213.9	1220.8	1230.4	1252.3	1256.4
25°	1183.8	1189.3	1203.0	1226.3	1233.1
27.5°	1146.9	1155.1	1172.9	1197.5	1207.1
30°	1109.9	1118.1	1140.0	1168.8	1177.0
32.5°	1070.2	1082.6	1105.8	1135.9	1145.5
35°	1029.2	1040.1	1067.5	1103.1	1114.0
37.5°	984.0	999.1	1029.2	1067.5	1081.2
40°	940.2	956.7	990.9	1031.9	1048.3
42.5°	896.4	912.9	951.2	997.7	1014.1
45°	847.2	865.0	908.8	958.0	975.8
47.5°	797.9	819.8	867.7	919.7	938.9
50°	747.3	771.9	823.9	878.6	900.5
52.5°	702.1	725.4	780.1	839.0	859.5
55°	650.1	676.1	736.3	796.5	819.8
57.5°	596.7	625.5	689.8	755.5	778.7
60°	544.7	576.2	647.3	713.0	739.0
62.5°	494.1	525.5	599.4	667.9	693.9
65°	439.3	476.3	552.9	622.7	647.3
67.5°	387.3	427.0	507.8	576.2	600.8
70°	336.7	375.0	461.2	528.3	552.9
72.5°	281.9	325.7	411.9	481.7	507.8
75°	227.2	279.2	364.0	432.5	457.1
77.5°	176.5	229.9	314.8	370.9	383.2
80°	130.0	184.8	258.7	298.4	313.4
82.5°	83.5	138.2	197.1	225.8	238.1
85°	46.5	91.7	128.6	145.1	150.5
87.5°	19.2	39.7	52.0	58.8	58.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)