

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: P309690

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-HRP-CA125-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: P309690
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-65HE-UNV-L82765-HRP-CA125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC 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: 4265.0 lumens
Efficiency: N/A
Efficacy: 81.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

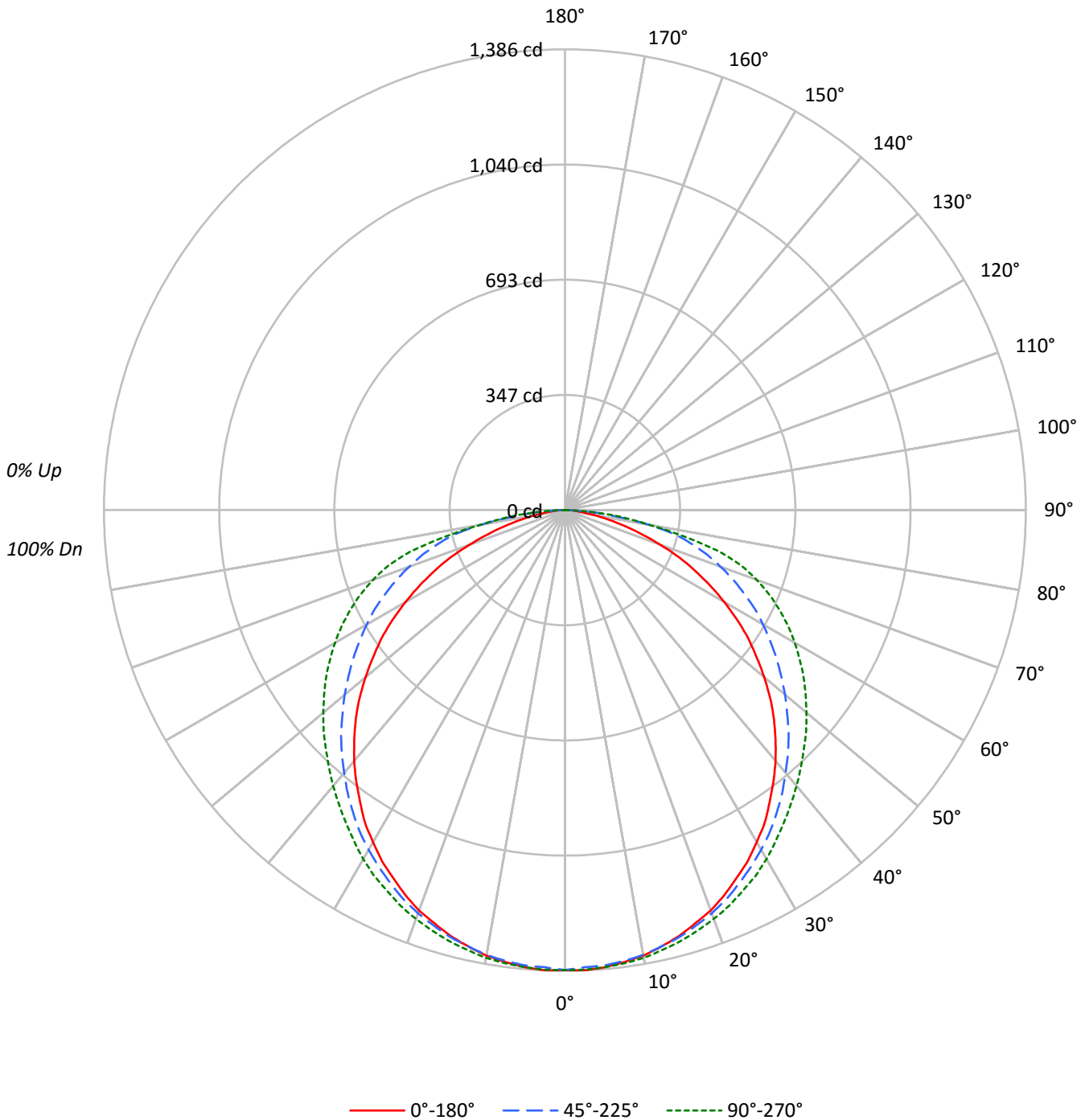
Input Watts (W): 52.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P309690

CATALOG NUMBER: 24FCZ2-65HE-UNV-L82765-HRP-CA125-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P309690

CATALOG NUMBER: 24FCZ2-65HE-UNV-L82765-HRP-CA125-W2A-U-3000K

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	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	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	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1862	1862	1862
5°	1864	1857	1864
10°	1859	1856	1869
15°	1848	1853	1870
20°	1836	1848	1874
25°	1813	1840	1877
30°	1792	1834	1884
35°	1763	1824	1886
40°	1731	1813	1904
45°	1692	1811	1933
50°	1637	1809	1985
55°	1579	1822	2057
60°	1489	1850	2148
65°	1376	1893	2268
70°	1201	1960	2416
75°	975	2061	2497
80°	719	2020	2020
85°	551	1488	1681



TEST NUMBER: P309690

CATALOG NUMBER: 24FCZ2-65HE-UNV-L82765-HRP-CA125-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.1	3.1
10°-20°	376.4	8.8
20°-30°	573.1	13.4
30°-40°	695.8	16.3
40°-50°	735.2	17.2
50°-60°	693.7	16.3
60°-70°	576.8	13.5
70°-80°	379.5	8.9
80°-90°	103.4	2.4
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°	1080.6	25.3
0°-40°	1776.4	41.7
0°-60°	3205.3	75.2
0°-90°	4265.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4265.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1384	1384	1384	1384	1384	
5°	1380	1380	1375	1380	1380	131
15°	1327	1328	1330	1343	1343	374
25°	1221	1228	1239	1261	1264	563
35°	1073	1086	1111	1139	1148	672
45°	889	907	952	998	1016	685
55°	673	702	777	850	877	600
65°	432	482	595	682	712	427
75°	188	273	396	470	480	202
85°	36	79	96	107	109	44
90°	0	0	0	0	0	



TEST NUMBER: P309690

CATALOG NUMBER: 24FCZ2-65HE-UNV-L82765-HRP-CA125-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1383.8	1383.8	1383.8	1383.8	1383.8
2.5°	1385.6	1383.8	1376.6	1383.8	1383.8
5°	1380.2	1380.2	1374.9	1380.2	1380.2
7.5°	1371.3	1371.3	1367.7	1374.9	1374.9
10°	1360.6	1360.6	1358.8	1367.7	1367.7
12.5°	1344.5	1346.3	1344.5	1355.2	1355.2
15°	1326.6	1328.4	1330.2	1342.7	1342.7
17.5°	1303.4	1307.0	1310.6	1324.9	1326.6
20°	1282.0	1283.8	1290.9	1307.0	1308.8
22.5°	1253.4	1258.8	1267.7	1283.8	1289.1
25°	1221.3	1228.4	1239.2	1260.6	1264.2
27.5°	1190.9	1196.3	1210.6	1233.8	1240.9
30°	1153.4	1162.4	1180.2	1203.4	1212.4
32.5°	1117.7	1126.7	1148.1	1173.1	1180.2
35°	1073.1	1085.6	1110.6	1139.2	1148.1
37.5°	1030.2	1042.7	1073.1	1105.2	1116.0
40°	985.6	999.9	1032.0	1069.5	1083.8
42.5°	937.4	957.0	992.8	1033.8	1049.9
45°	889.2	907.0	951.7	998.1	1016.0
47.5°	837.4	858.8	907.0	962.4	983.8
50°	782.1	808.8	864.2	924.9	948.1
52.5°	726.7	757.1	819.6	887.4	912.4
55°	673.1	701.7	776.7	849.9	876.7
57.5°	614.2	649.9	732.1	810.6	837.4
60°	553.5	592.8	687.4	769.6	798.1
62.5°	492.8	537.4	644.6	726.7	757.1
65°	432.1	482.1	594.6	682.1	712.4
67.5°	373.2	428.5	548.2	635.6	666.0
70°	305.3	375.0	498.2	583.9	614.2
72.5°	242.8	323.2	450.0	530.3	557.1
75°	187.5	273.2	396.4	469.6	480.3
77.5°	137.5	223.2	341.0	366.0	367.8
80°	92.8	178.6	260.7	257.1	260.7
82.5°	60.7	133.9	164.3	183.9	185.7
85°	35.7	78.6	96.4	107.1	108.9
87.5°	17.9	26.8	33.9	35.7	39.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)