

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: P313350

Luminaire Tested: **24FCZ2-65HE-UNV-L83050-HRP-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: P313350
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-L83050-HRP-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 4286.0 lumens
Efficiency: N/A
Efficacy: 81.6 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

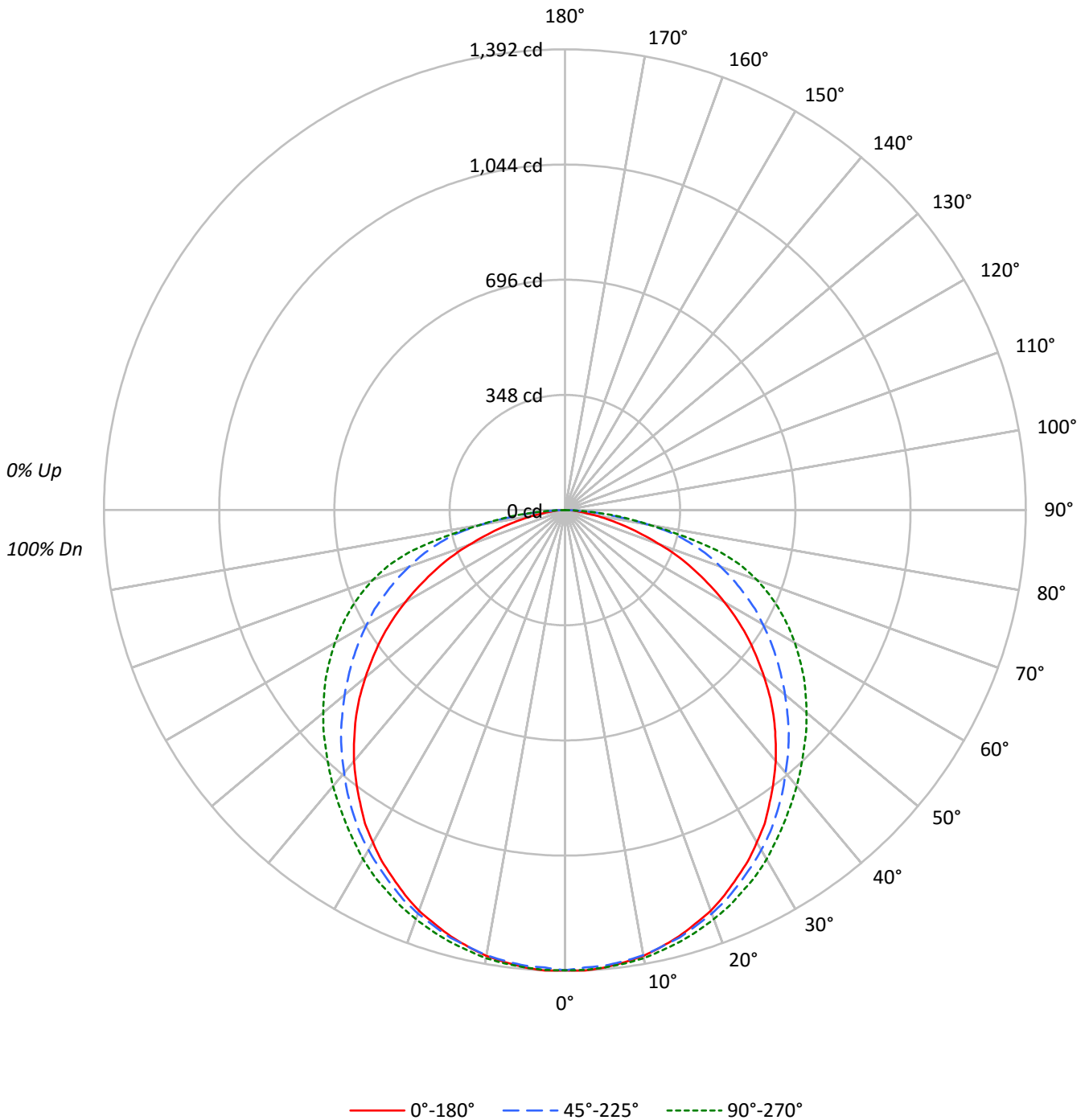
Input Watts (W): 52.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P313350

CATALOG NUMBER: 24FCZ2-65HE-UNV-L83050-HRP-CP125-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P313350

CATALOG NUMBER: 24FCZ2-65HE-UNV-L83050-HRP-CP125-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°	1871	1871	1871
5°	1873	1866	1873
10°	1868	1866	1878
15°	1857	1862	1880
20°	1845	1858	1883
25°	1822	1849	1886
30°	1801	1843	1893
35°	1771	1833	1895
40°	1740	1822	1913
45°	1700	1820	1943
50°	1645	1818	1994
55°	1587	1831	2067
60°	1497	1859	2158
65°	1382	1902	2279
70°	1207	1969	2428
75°	979	2071	2509
80°	723	2030	2030
85°	554	1496	1690



TEST NUMBER: P313350

CATALOG NUMBER: 24FCZ2-65HE-UNV-L83050-HRP-CP125-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.7	3.1
10°-20°	378.3	8.8
20°-30°	575.9	13.4
30°-40°	699.3	16.3
40°-50°	738.8	17.2
50°-60°	697.1	16.3
60°-70°	579.6	13.5
70°-80°	381.3	8.9
80°-90°	104.0	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°	1085.9	25.3
0°-40°	1785.2	41.7
0°-60°	3221.1	75.2
0°-90°	4286.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4286.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1391	1391	1391	1391	1391	
5°	1387	1387	1382	1387	1387	132
15°	1333	1335	1337	1349	1349	376
25°	1227	1234	1245	1267	1270	566
35°	1078	1091	1116	1145	1154	675
45°	894	912	956	1003	1021	688
55°	676	705	780	854	881	603
65°	434	484	598	685	716	429
75°	188	274	398	472	483	203
85°	36	79	97	108	110	44
90°	0	0	0	0	0	



TEST NUMBER: P313350

CATALOG NUMBER: 24FCZ2-65HE-UNV-L83050-HRP-CP125-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1390.6	1390.6	1390.6	1390.6	1390.6
2.5°	1392.4	1390.6	1383.4	1390.6	1390.6
5°	1387.0	1387.0	1381.6	1387.0	1387.0
7.5°	1378.0	1378.0	1374.4	1381.6	1381.6
10°	1367.3	1367.3	1365.5	1374.4	1374.4
12.5°	1351.1	1352.9	1351.1	1361.9	1361.9
15°	1333.2	1335.0	1336.8	1349.3	1349.3
17.5°	1309.9	1313.4	1317.0	1331.4	1333.2
20°	1288.3	1290.1	1297.3	1313.4	1315.2
22.5°	1259.6	1265.0	1274.0	1290.1	1295.5
25°	1227.3	1234.5	1245.3	1266.8	1270.4
27.5°	1196.8	1202.2	1216.5	1239.9	1247.1
30°	1159.1	1168.1	1186.0	1209.4	1218.3
32.5°	1123.2	1132.2	1153.7	1178.9	1186.0
35°	1078.4	1090.9	1116.1	1144.8	1153.7
37.5°	1035.3	1047.9	1078.4	1110.7	1121.4
40°	990.5	1004.8	1037.1	1074.8	1089.2
42.5°	942.0	961.8	997.6	1038.9	1055.1
45°	893.6	911.5	956.4	1003.0	1021.0
47.5°	841.5	863.1	911.5	967.1	988.7
50°	785.9	812.8	868.4	929.5	952.8
52.5°	730.3	760.8	823.6	891.8	916.9
55°	676.5	705.2	780.5	854.1	881.0
57.5°	617.2	653.1	735.7	814.6	841.5
60°	556.2	595.7	690.8	773.4	802.1
62.5°	495.2	540.1	647.7	730.3	760.8
65°	434.2	484.5	597.5	685.4	715.9
67.5°	375.0	430.6	550.9	638.8	669.3
70°	306.8	376.8	500.6	586.7	617.2
72.5°	244.0	324.8	452.2	532.9	559.8
75°	188.4	274.5	398.3	471.9	482.7
77.5°	138.2	224.3	342.7	367.8	369.6
80°	93.3	179.4	262.0	258.4	262.0
82.5°	61.0	134.6	165.1	184.8	186.6
85°	35.9	78.9	96.9	107.7	109.5
87.5°	17.9	26.9	34.1	35.9	39.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)