

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: P309706

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-HRP-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: P309706
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-CP125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 4630.0 lumens
Efficiency: N/A
Efficacy: 84.3 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

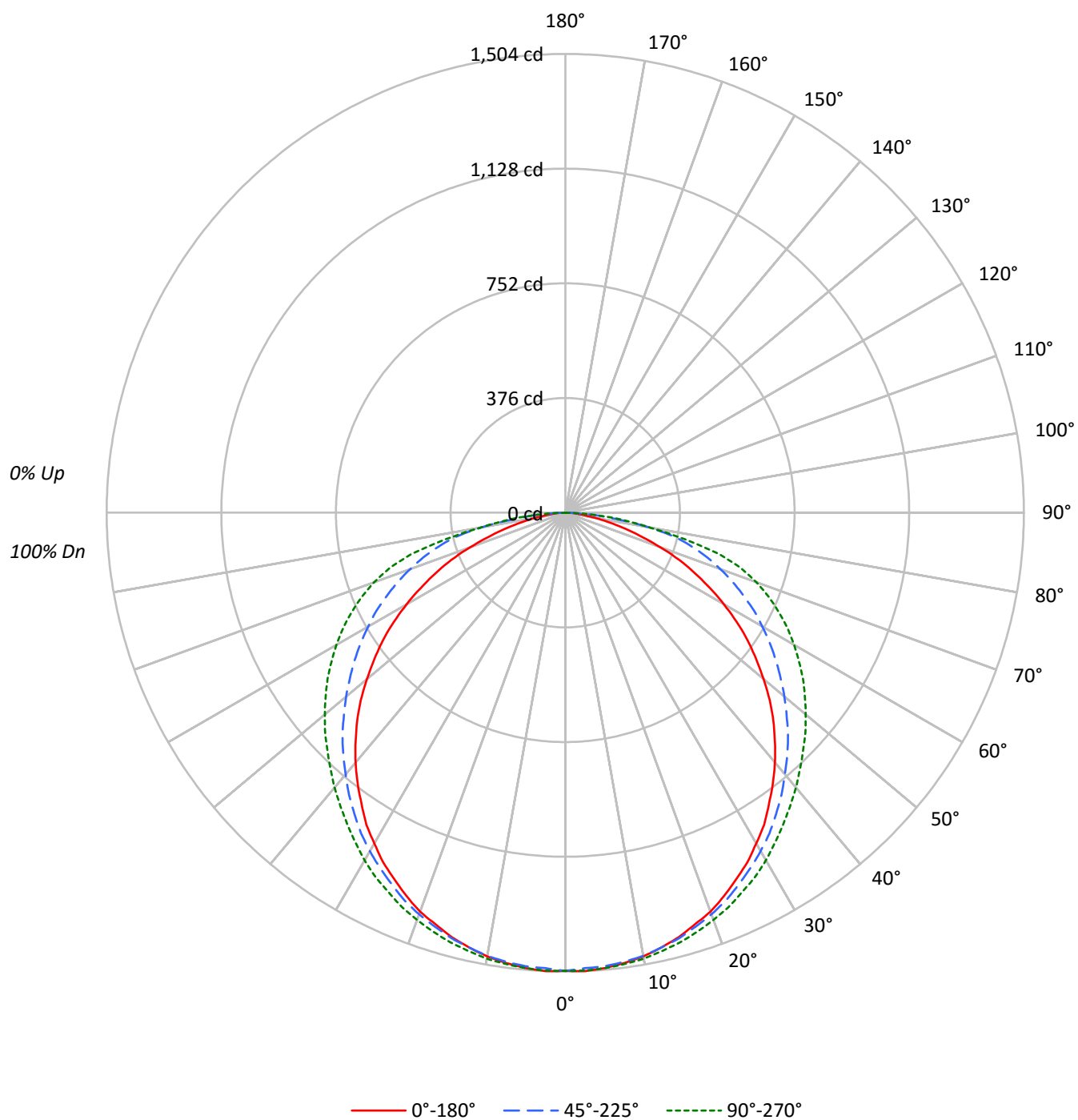
Input Watts (W): 54.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P309706

CATALOG NUMBER: 24FCZ2-65HE-UNV-L82765-HRP-CP125-W2A-U-6500K

Luminous Intensity Polar Plot





TEST NUMBER: P309706

CATALOG NUMBER: 24FCZ2-65HE-UNV-L82765-HRP-CP125-W2A-U-6500K

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		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	108	103	98	94	105	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2021	2021	2021
5°	2024	2016	2024
10°	2018	2015	2029
15°	2006	2012	2030
20°	1993	2007	2034
25°	1968	1997	2037
30°	1945	1991	2045
35°	1913	1980	2047
40°	1879	1968	2067
45°	1837	1966	2099
50°	1777	1964	2155
55°	1714	1978	2232
60°	1617	2008	2331
65°	1493	2055	2462
70°	1304	2127	2623
75°	1058	2237	2711
80°	781	2193	2193
85°	599	1616	1825



TEST NUMBER: P309706

CATALOG NUMBER: 24FCZ2-65HE-UNV-L82765-HRP-CP125-W2A-U-6500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.3	3.1
10°-20°	408.7	8.8
20°-30°	622.1	13.4
30°-40°	755.4	16.3
40°-50°	798.1	17.2
50°-60°	753.1	16.3
60°-70°	626.1	13.5
70°-80°	411.9	8.9
80°-90°	112.3	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°	1173.1	25.3
0°-40°	1928.5	41.7
0°-60°	3479.6	75.2
0°-90°	4630.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4630.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1502	1502	1502	1502	1502	
5°	1498	1498	1492	1498	1498	142
15°	1440	1442	1444	1458	1458	406
25°	1326	1334	1345	1368	1372	612
35°	1165	1178	1206	1237	1246	729
45°	965	985	1033	1084	1103	743
55°	731	762	843	923	952	651
65°	469	523	646	740	773	464
75°	204	297	430	510	521	219
85°	39	85	105	116	118	47
90°	0	0	0	0	0	



TEST NUMBER: P309706

CATALOG NUMBER: 24FCZ2-65HE-UNV-L82765-HRP-CP125-W2A-U-6500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1502.2	1502.2	1502.2	1502.2	1502.2
2.5°	1504.1	1502.2	1494.5	1502.2	1502.2
5°	1498.3	1498.3	1492.5	1498.3	1498.3
7.5°	1488.6	1488.6	1484.8	1492.5	1492.5
10°	1477.0	1477.0	1475.1	1484.8	1484.8
12.5°	1459.6	1461.5	1459.6	1471.2	1471.2
15°	1440.2	1442.1	1444.1	1457.6	1457.6
17.5°	1415.0	1418.9	1422.7	1438.2	1440.2
20°	1391.7	1393.7	1401.4	1418.9	1420.8
22.5°	1360.7	1366.5	1376.2	1393.7	1399.5
25°	1325.8	1333.6	1345.2	1368.5	1372.3
27.5°	1292.9	1298.7	1314.2	1339.4	1347.1
30°	1252.2	1261.9	1281.2	1306.4	1316.1
32.5°	1213.4	1223.1	1246.3	1273.5	1281.2
35°	1164.9	1178.5	1205.6	1236.7	1246.3
37.5°	1118.4	1132.0	1164.9	1199.8	1211.5
40°	1070.0	1085.5	1120.4	1161.1	1176.6
42.5°	1017.6	1038.9	1077.7	1122.3	1139.7
45°	965.3	984.7	1033.1	1083.5	1102.9
47.5°	909.1	932.3	984.7	1044.8	1068.0
50°	849.0	878.1	938.2	1004.1	1029.3
52.5°	788.9	821.9	889.7	963.4	990.5
55°	730.8	761.8	843.2	922.6	951.7
57.5°	666.8	705.6	794.7	880.0	909.1
60°	600.9	643.5	746.3	835.4	866.4
62.5°	535.0	583.4	699.7	788.9	821.9
65°	469.1	523.3	645.5	740.4	773.4
67.5°	405.1	465.2	595.1	690.0	723.0
70°	331.5	407.0	540.8	633.8	666.8
72.5°	263.6	350.8	488.5	575.7	604.8
75°	203.5	296.6	430.3	509.8	521.4
77.5°	149.3	242.3	370.2	397.4	399.3
80°	100.8	193.8	283.0	279.1	283.0
82.5°	65.9	145.4	178.3	199.6	201.6
85°	38.8	85.3	104.7	116.3	118.2
87.5°	19.4	29.1	36.8	38.8	42.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)