

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: P309696

Luminaire Tested: **24FCZ2-65HE-UNV-L82765-HRP-CA125-W2A-U-5700K**

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: P309696
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-5700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 5700K 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: 4709.0 lumens
Efficiency: N/A
Efficacy: 87.0 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

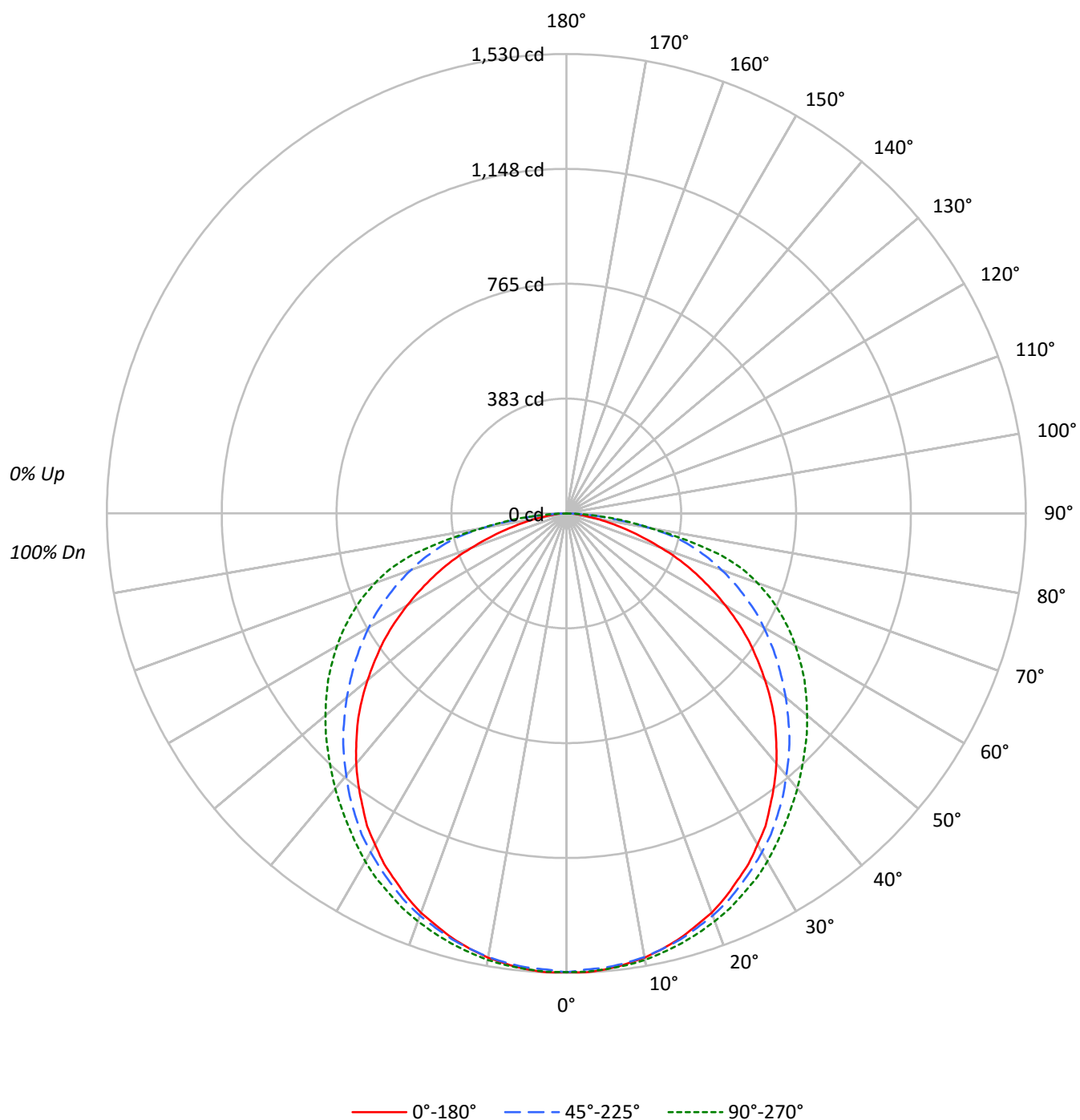
Input Watts (W): 54.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		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°	2056	2056	2056
5°	2058	2050	2058
10°	2052	2050	2063
15°	2040	2046	2065
20°	2027	2041	2069
25°	2002	2031	2072
30°	1979	2025	2080
35°	1946	2014	2082
40°	1911	2001	2102
45°	1868	1999	2134
50°	1807	1997	2191
55°	1743	2012	2271
60°	1644	2042	2371
65°	1519	2090	2504
70°	1326	2164	2668
75°	1076	2275	2757
80°	794	2230	2230
85°	608	1644	1857



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.7	3.1
10°-20°	415.6	8.8
20°-30°	632.7	13.4
30°-40°	768.3	16.3
40°-50°	811.7	17.2
50°-60°	765.9	16.3
60°-70°	636.8	13.5
70°-80°	419.0	8.9
80°-90°	114.2	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°	1193.1	25.3
0°-40°	1961.4	41.7
0°-60°	3539.0	75.2
0°-90°	4709.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4709.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1528	1528	1528	1528	1528	
5°	1524	1524	1518	1524	1524	145
15°	1465	1467	1469	1482	1482	413
25°	1348	1356	1368	1392	1396	622
35°	1185	1199	1226	1258	1268	742
45°	982	1002	1051	1102	1122	756
55°	743	775	858	938	968	662
65°	477	532	656	753	787	472
75°	207	302	438	518	530	223
85°	39	87	106	118	120	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1527.8	1527.8	1527.8	1527.8	1527.8
2.5°	1529.8	1527.8	1520.0	1527.8	1527.8
5°	1523.9	1523.9	1518.0	1523.9	1523.9
7.5°	1514.0	1514.0	1510.1	1518.0	1518.0
10°	1502.2	1502.2	1500.2	1510.1	1510.1
12.5°	1484.5	1486.4	1484.5	1496.3	1496.3
15°	1464.8	1466.7	1468.7	1482.5	1482.5
17.5°	1439.1	1443.1	1447.0	1462.8	1464.8
20°	1415.5	1417.4	1425.3	1443.1	1445.0
22.5°	1383.9	1389.8	1399.7	1417.4	1423.4
25°	1348.4	1356.3	1368.2	1391.8	1395.8
27.5°	1314.9	1320.8	1336.6	1362.2	1370.1
30°	1273.5	1283.4	1303.1	1328.7	1338.6
32.5°	1234.1	1244.0	1267.6	1295.2	1303.1
35°	1184.8	1198.6	1226.2	1257.8	1267.6
37.5°	1137.5	1151.3	1184.8	1220.3	1232.1
40°	1088.2	1104.0	1139.5	1180.9	1196.6
42.5°	1035.0	1056.7	1096.1	1141.4	1159.2
45°	981.8	1001.5	1050.8	1102.0	1121.7
47.5°	924.6	948.2	1001.5	1062.6	1086.2
50°	863.5	893.0	954.2	1021.2	1046.8
52.5°	802.4	835.9	904.9	979.8	1007.4
55°	743.2	774.8	857.6	938.4	968.0
57.5°	678.2	717.6	808.3	895.0	924.6
60°	611.1	654.5	759.0	849.7	881.2
62.5°	544.1	593.4	711.7	802.4	835.9
65°	477.1	532.3	656.5	753.1	786.6
67.5°	412.0	473.1	605.2	701.8	735.3
70°	337.1	414.0	550.0	644.6	678.2
72.5°	268.1	356.8	496.8	585.5	615.1
75°	207.0	301.6	437.7	518.5	530.3
77.5°	151.8	246.4	376.5	404.1	406.1
80°	102.5	197.1	287.8	283.9	287.8
82.5°	67.0	147.9	181.4	203.1	205.0
85°	39.4	86.7	106.5	118.3	120.3
87.5°	19.7	29.6	37.5	39.4	43.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)