

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: P309813

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-HRP-CP250-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: P309813
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: 24FCZ2-75HE-UNV-L82765-HRP-CP250-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB 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: 5059.0 lumens
Efficiency: N/A
Efficacy: 78.3 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

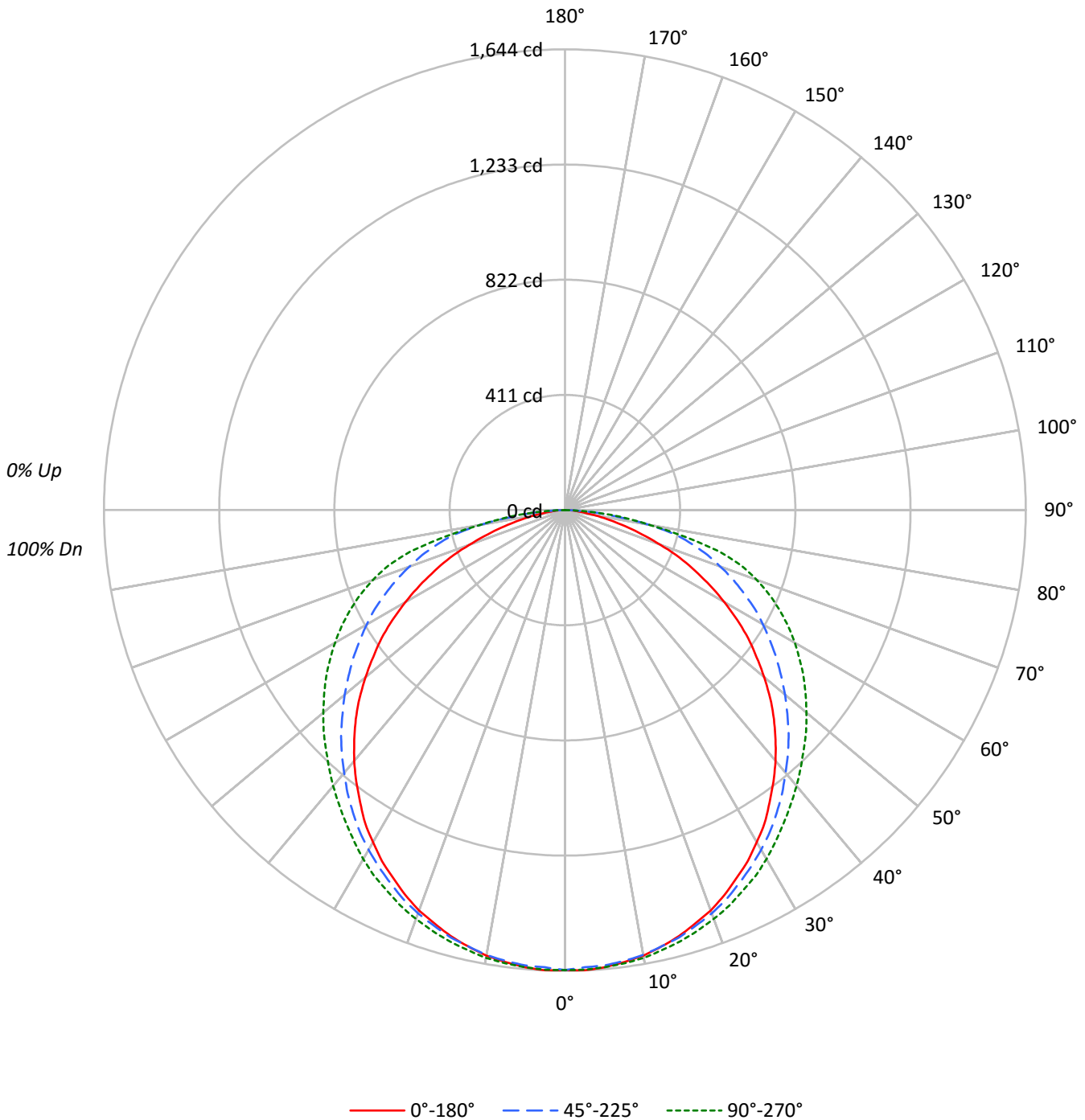
Input Watts (W): 64.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P309813

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-HRP-CP250-W2A-U-5700K

Luminous Intensity Polar Plot





TEST NUMBER: P309813

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-HRP-CP250-W2A-U-5700K

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°	2208	2208	2208
5°	2211	2203	2211
10°	2205	2202	2216
15°	2192	2198	2219
20°	2177	2193	2223
25°	2151	2182	2226
30°	2126	2175	2234
35°	2091	2164	2237
40°	2053	2150	2258
45°	2007	2148	2293
50°	1942	2146	2354
55°	1873	2161	2439
60°	1767	2194	2548
65°	1632	2245	2691
70°	1425	2325	2866
75°	1156	2444	2962
80°	853	2396	2396
85°	655	1766	1995



TEST NUMBER: P309813

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-HRP-CP250-W2A-U-5700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.5	3.1
10°-20°	446.5	8.8
20°-30°	679.8	13.4
30°-40°	825.4	16.3
40°-50°	872.0	17.2
50°-60°	822.8	16.3
60°-70°	684.2	13.5
70°-80°	450.1	8.9
80°-90°	122.7	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°	1281.8	25.3
0°-40°	2107.2	41.7
0°-60°	3802.0	75.2
0°-90°	5059.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5059.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1641	1641	1641	1641	1641	
5°	1637	1637	1631	1637	1637	156
15°	1574	1576	1578	1593	1593	444
25°	1449	1457	1470	1495	1500	668
35°	1273	1288	1317	1351	1362	797
45°	1055	1076	1129	1184	1205	812
55°	798	832	921	1008	1040	711
65°	512	572	705	809	845	507
75°	222	324	470	557	570	240
85°	42	93	114	127	129	52
90°	0	0	0	0	0	



TEST NUMBER: P309813

CATALOG NUMBER: 24FCZ2-75HE-UNV-L82765-HRP-CP250-W2A-U-5700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1641.4	1641.4	1641.4	1641.4	1641.4
2.5°	1643.5	1641.4	1632.9	1641.4	1641.4
5°	1637.2	1637.2	1630.8	1637.2	1637.2
7.5°	1626.6	1626.6	1622.3	1630.8	1630.8
10°	1613.9	1613.9	1611.7	1622.3	1622.3
12.5°	1594.8	1596.9	1594.8	1607.5	1607.5
15°	1573.6	1575.7	1577.9	1592.7	1592.7
17.5°	1546.1	1550.3	1554.6	1571.5	1573.6
20°	1520.7	1522.8	1531.3	1550.3	1552.4
22.5°	1486.8	1493.1	1503.7	1522.8	1529.1
25°	1448.7	1457.1	1469.8	1495.3	1499.5
27.5°	1412.7	1419.0	1436.0	1463.5	1472.0
30°	1368.2	1378.8	1400.0	1427.5	1438.1
32.5°	1325.8	1336.4	1361.8	1391.5	1400.0
35°	1272.9	1287.7	1317.4	1351.2	1361.8
37.5°	1222.0	1236.9	1272.9	1311.0	1323.7
40°	1169.1	1186.0	1224.2	1268.6	1285.6
42.5°	1111.9	1135.2	1177.6	1226.3	1245.3
45°	1054.7	1075.9	1128.9	1183.9	1205.1
47.5°	993.3	1018.7	1075.9	1141.6	1167.0
50°	927.7	959.4	1025.1	1097.1	1124.6
52.5°	862.0	898.0	972.1	1052.6	1082.3
55°	798.5	832.3	921.3	1008.1	1039.9
57.5°	728.6	770.9	868.4	961.5	993.3
60°	656.6	703.2	815.4	912.8	946.7
62.5°	584.5	637.5	764.6	862.0	898.0
65°	512.5	571.8	705.3	809.0	845.1
67.5°	442.6	508.3	650.2	754.0	790.0
70°	362.2	444.8	590.9	692.6	728.6
72.5°	288.0	383.3	533.7	629.0	660.8
75°	222.4	324.0	470.2	557.0	569.7
77.5°	163.1	264.7	404.5	434.2	436.3
80°	110.1	211.8	309.2	305.0	309.2
82.5°	72.0	158.8	194.8	218.1	220.3
85°	42.4	93.2	114.4	127.1	129.2
87.5°	21.2	31.8	40.2	42.4	46.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)