

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: P30811

Luminaire Tested: **SGI-G-332-UNV-CA08-EB81**

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: P30811
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: SGI-G-332-UNV-CA08-EB81
Description: FAILSAFE HEALTHCARE 2x 4 LINEAR FLUORESCENT RECESSED TROFFER,
A CENTER MOUNTED ROUND PERFORATED WHITE STEEL BASKET WITH A
COATED INLAY AND DOOR WITH A CLEAR PLASTIC LENS----RELATIVE
PHOTOMETRY IS BASED ON RELATIONAL FACTORS CREATED USING
MANUFACTURERS PUBLISHED DATA AND A BARE LAMP SUM FOR THE LAMP
UNDER TEST IN GONIOPHOTOMETER WITH TEST DISTANCE OF 24.0 FT
Light Source: (3) BIPIN T8 DOUBLE ENDED LINEAR FLUORESCENT LAMP 4100K
GE F32T8-XL-SPX41-HL-ECO 32 W
Ballast/Driver: SYLVANIA ELECTRONIC BALLAST
QUICTRONICS QTP3x32T8/UNV ISN-SC

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

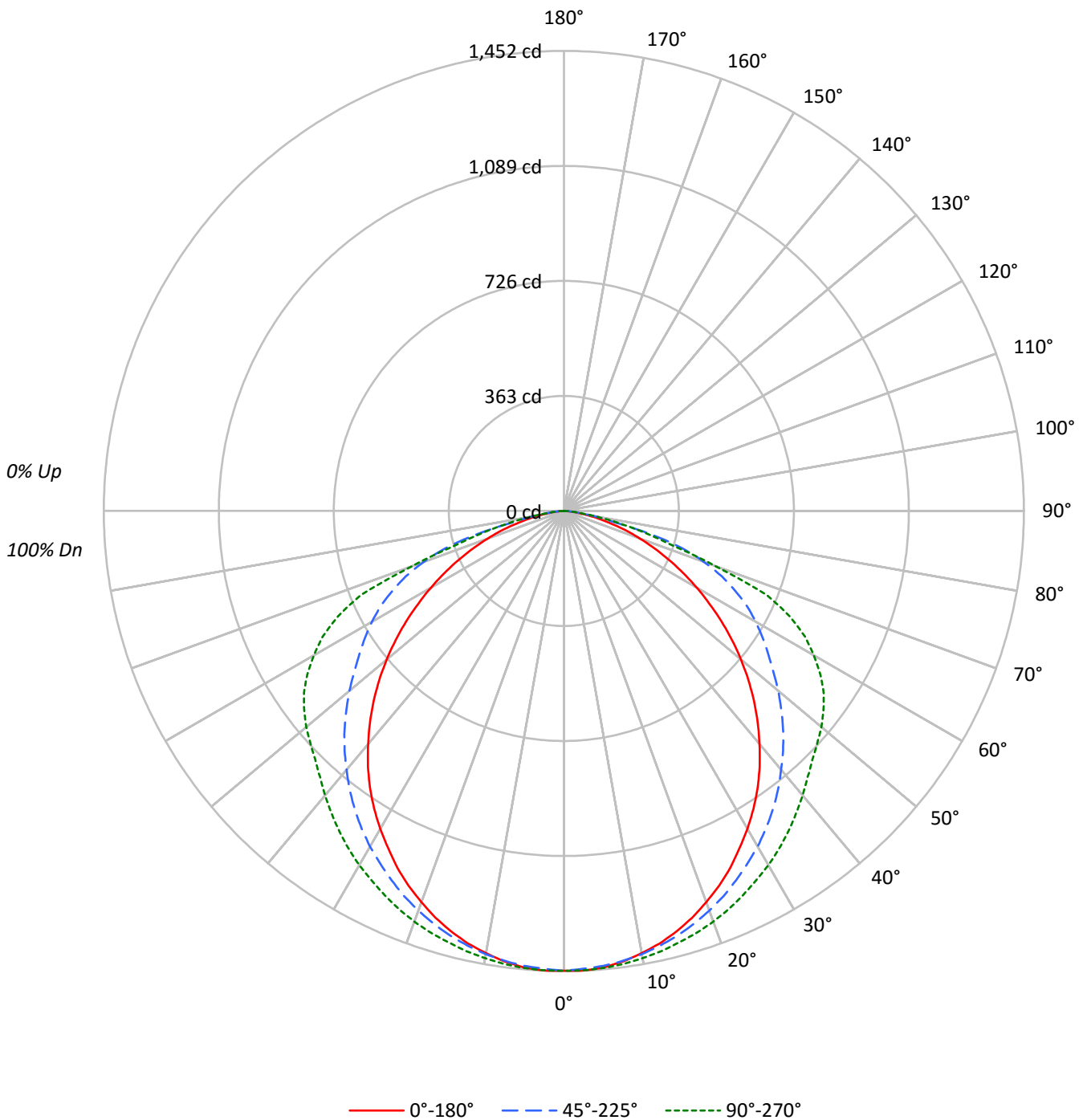
Lumens per Lamp: 2800 (3 lamps)
Luminaire Lumens: 4184.8 lumens
Efficiency: 49.8%
Efficacy: 53.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.32 / 1.39
Luminous Opening: Rectangular (V)
CIE Type: Direct

Input Watts (W): 77.6
Input Voltage (V): 120.06
Input Current (Ain): 0.6470
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				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	59	59	59	59	58	58	58	58	55	55	55	53	53	53	51	51	51	50
1	54	52	50	48	53	51	49	47	49	47	46	47	46	44	45	44	43	42
2	49	45	42	39	48	44	41	39	43	40	38	41	39	37	39	38	36	35
3	45	40	36	32	44	39	35	32	37	34	31	36	33	31	35	32	30	29
4	41	35	31	27	40	34	30	27	33	30	27	32	29	26	31	28	26	25
5	38	31	27	23	37	31	26	23	30	26	23	29	25	23	28	25	22	21
6	35	28	24	20	34	28	23	20	27	23	20	26	22	20	25	22	20	19
7	32	25	21	18	31	25	21	18	24	20	18	24	20	18	23	20	17	16
8	30	23	19	16	29	23	19	16	22	18	16	22	18	16	21	18	16	15
9	28	21	17	14	27	21	17	14	20	17	14	20	17	14	19	16	14	13
10	26	20	16	13	26	19	16	13	19	15	13	18	15	13	18	15	13	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1952	1952	1952
5°	1953	1946	1956
10°	1936	1940	1958
15°	1914	1932	1963
20°	1881	1922	1975
25°	1845	1909	1986
30°	1801	1900	2006
35°	1753	1889	2029
40°	1688	1874	2059
45°	1615	1863	2112
50°	1528	1848	2221
55°	1424	1846	2348
60°	1305	1881	2451
65°	1168	1901	2502
70°	1011	1857	2006
75°	806	1487	1362
80°	573	790	829
85°	309	401	401



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	137.2	3.3	1.6	0°	1451	1451	1451	1451	1451	
10°-20°	392.2	9.4	4.7	5°	1446	1443	1441	1446	1448	137
20°-30°	593.9	14.2	7.1	15°	1374	1376	1387	1403	1409	387
30°-40°	719.7	17.2	8.6	25°	1243	1255	1286	1323	1338	572
40°-50°	756.3	18.1	9.0	35°	1067	1090	1150	1211	1235	666
50°-60°	713.3	17.0	8.5	45°	849	890	979	1068	1110	654
60°-70°	571.7	13.7	6.8	55°	607	664	787	939	1001	543
70°-80°	262.0	6.3	3.1	65°	367	427	597	733	786	365
80°-90°	38.5	0.9	0.5	75°	155	221	286	252	262	169
90°-100°	0.1	0.0	0.0	85°	20	24	26	26	26	28
100°-110°	0.0	0.0	0.0	90°	0	0	1	1	1	1
110°-120°	0.0	0.0	0.0	95°	0	0	0	0	0	0
120°-130°	0.0	0.0	0.0	105°	0	0	0	0	0	0
130°-140°	0.0	0.0	0.0	115°	0	0	0	0	0	0
140°-150°	0.0	0.0	0.0	125°	0	0	0	0	0	0
150°-160°	0.0	0.0	0.0	135°	0	0	0	0	0	0
160°-170°	0.0	0.0	0.0	145°	0	0	0	0	0	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	1123.3	26.8	13.4	165°	0	0	0	0	0	0
0°-40°	1843.0	44.0	21.9	175°	0	0	0	0	0	0
0°-60°	3312.6	79.2	39.4	180°	0	0	0	0	0	0
0°-90°	4184.7	100.0	49.8							
90°-120°	0.1	0.0	0.0							
90°-150°	0.1	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	4184.8	100.0	49.8							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1451	1451	1451	1451	1451
2.5°	1452	1449	1446	1449	1451
5°	1446	1443	1441	1446	1448
7.5°	1434	1432	1432	1439	1442
10°	1417	1417	1420	1430	1433
12.5°	1398	1398	1405	1418	1423
15°	1374	1376	1387	1403	1409
17.5°	1346	1351	1366	1387	1396
20°	1314	1322	1342	1368	1379
22.5°	1280	1289	1316	1347	1360
25°	1243	1255	1286	1323	1338
27.5°	1200	1217	1255	1296	1314
30°	1159	1177	1223	1270	1291
32.5°	1114	1135	1188	1242	1264
35°	1067	1090	1150	1211	1235
37.5°	1015	1044	1110	1178	1204
40°	961	993	1067	1141	1172
42.5°	906	943	1024	1105	1139
45°	849	890	979	1068	1110
47.5°	790	835	931	1035	1085
50°	730	779	883	1005	1061
52.5°	669	722	833	972	1033
55°	607	664	787	939	1001
57.5°	545	605	744	898	960
60°	485	546	699	852	911
62.5°	425	487	652	799	858
65°	367	427	597	733	786
67.5°	312	372	540	656	694
70°	257	320	472	545	510
72.5°	207	271	394	351	353
75°	155	221	286	252	262
77.5°	113	170	160	174	178
80°	74	117	102	106	107
82.5°	43	58	56	55	55
85°	20	24	26	26	26
87.5°	7	9	11	11	11
90°	0	0	1	1	1
92.5°	0	0	0	0	0
95°	0	0	0	0	0
97.5°	0	0	0	0	0
100°	0	0	0	0	0
102.5°	0	0	0	0	0
105°	0	0	0	0	0
107.5°	0	0	0	0	0
110°	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0	0	0	0	0
115°	0	0	0	0	0
117.5°	0	0	0	0	0
120°	0	0	0	0	0
122.5°	0	0	0	0	0
125°	0	0	0	0	0
127.5°	0	0	0	0	0
130°	0	0	0	0	0
132.5°	0	0	0	0	0
135°	0	0	0	0	0
137.5°	0	0	0	0	0
140°	0	0	0	0	0
142.5°	0	0	0	0	0
145°	0	0	0	0	0
147.5°	0	0	0	0	0
150°	0	0	0	0	0
152.5°	0	0	0	0	0
155°	0	0	0	0	0
157.5°	0	0	0	0	0
160°	0	0	0	0	0
162.5°	0	0	0	0	0
165°	0	0	0	0	0
167.5°	0	0	0	0	0
170°	0	0	0	0	0
172.5°	0	0	0	0	0
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)