

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P31311

Luminaire Tested: **2GR8-2U158A-UNV-EB81**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P31311
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2GR8-2U158A-UNV-EB81
Description: METALUX 2' X 2' COMMERCIAL TROFFER WITH ACRYLIC PRISMATIC LENS
Light Source: (2) MEDIUM BASE BIPIN T8 1-5/8" U-LAMP 3500K
FBO31/835/XP/ECO
Ballast/Driver: -
QTP 2X32T8/UNV ISN-SC

Summary

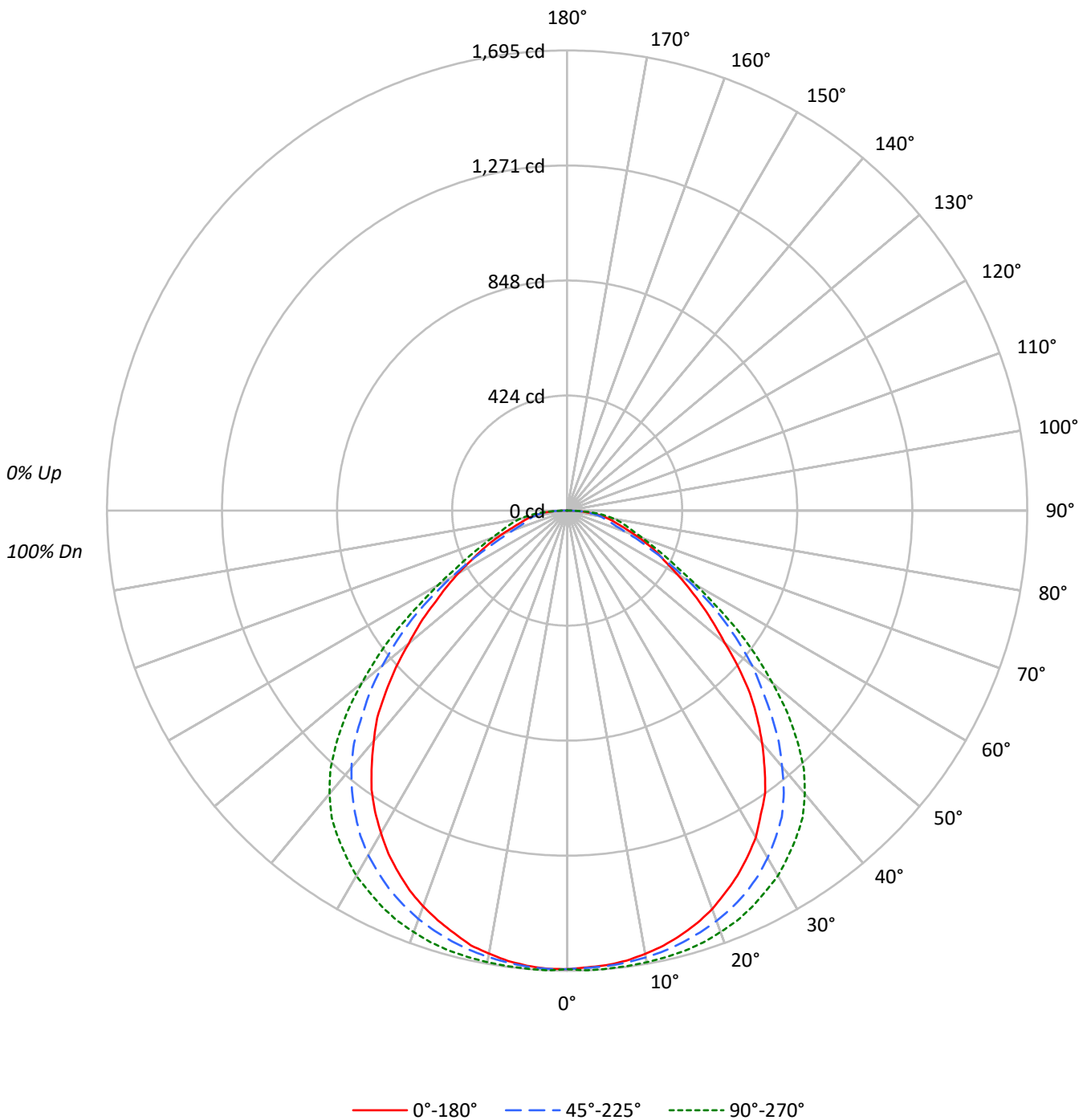
Lumens per Lamp: 2725 (2 lamps)
Luminaire Lumens: 4279.7 lumens
Efficiency: 78.5%
Efficacy: 81.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.35 / 1.35
Luminous Opening: Rectangular (W 1.77' x L: 1.77' x H: 0')
CIE Type: Direct

Input Watts (W): 52.6
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

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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	93	93	93	93	91	91	91	91	87	87	87		84	84	84		80	80	80	79
1	86	82	79	77	84	81	78	75	77	75	73		74	72	71		72	70	69	67
2	79	73	68	64	77	71	67	63	69	65	61		66	63	60		64	61	59	57
3	72	65	59	54	70	63	58	53	61	56	52		59	55	51		57	53	51	49
4	67	58	51	46	65	57	51	46	55	49	45		53	48	45		51	47	44	42
5	61	52	45	40	60	51	45	40	49	44	39		48	43	39		46	42	39	37
6	57	47	40	35	55	46	40	35	45	39	35		43	38	35		42	38	34	33
7	53	43	36	31	52	42	36	31	41	35	31		40	35	31		39	34	31	29
8	49	39	33	28	48	38	32	28	37	32	28		36	31	28		36	31	28	26
9	46	36	30	25	45	35	29	25	35	29	25		34	29	25		33	28	25	24
10	43	33	27	23	42	33	27	23	32	27	23		31	26	23		31	26	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	5798	5798	5798
5°	5792	5837	5799
10°	5779	5887	5775
15°	5753	5963	5725
20°	5706	6034	5666
25°	5620	6101	5571
30°	5509	6155	5438
35°	5330	6164	5263
40°	5005	6103	4965
45°	4621	5815	4582
50°	4042	5265	4069
55°	3609	4572	3579
60°	3206	3762	3185
65°	2965	3224	2826
70°	2720	2971	2539
75°	2586	3037	2400
80°	2807	3499	2669
85°	2875	4096	3151



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	160.5	3.8	2.9	0°	1689	1689	1689	1689	1689	
10°-20°	464.8	10.9	8.5	5°	1681	1684	1694	1686	1683	160
20°-30°	712.4	16.6	13.1	15°	1619	1646	1678	1642	1611	457
30°-40°	852.8	19.9	15.6	25°	1484	1555	1611	1543	1471	683
40°-50°	821.6	19.2	15.1	35°	1272	1378	1471	1362	1256	789
50°-60°	614.7	14.4	11.3	45°	952	1063	1198	1068	944	728
60°-70°	360.4	8.4	6.6	55°	603	704	764	697	598	541
70°-80°	205.5	4.8	3.8	65°	365	344	397	318	348	361
80°-90°	86.9	2.0	1.6	75°	195	162	229	156	181	210
90°-100°	0.0	0.0	0.0	85°	73	73	104	80	80	80
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	
110°-120°	0.0	0.0	0.0							
120°-130°	0.0	0.0	0.0							
130°-140°	0.0	0.0	0.0							
140°-150°	0.0	0.0	0.0							
150°-160°	0.0	0.0	0.0							
160°-170°	0.0	0.0	0.0							
170°-180°	0.0	0.0	0.0							
0°-30°	1337.7	31.3	24.5							
0°-40°	2190.6	51.2	40.2							
0°-60°	3626.9	84.7	66.5							
0°-90°	4279.7	100.0	78.5							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	4279.7	100.0	78.5							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1689	1689	1689	1689	1689	1689	1689	1689	1689
2.5°	1684	1686	1686	1691	1695	1692	1690	1689	1689
5°	1681	1682	1684	1690	1694	1691	1686	1684	1683
7.5°	1672	1674	1679	1688	1692	1688	1679	1674	1673
10°	1658	1662	1671	1683	1689	1683	1670	1662	1657
12.5°	1641	1650	1661	1677	1685	1675	1658	1643	1640
15°	1619	1628	1646	1669	1678	1665	1642	1622	1611
17.5°	1593	1605	1629	1657	1668	1653	1623	1597	1583
20°	1562	1577	1608	1640	1652	1637	1601	1566	1551
22.5°	1523	1545	1584	1620	1635	1616	1573	1533	1515
25°	1484	1509	1555	1596	1611	1589	1543	1493	1471
27.5°	1438	1468	1519	1567	1582	1559	1505	1452	1425
30°	1390	1418	1477	1534	1553	1522	1465	1404	1372
32.5°	1327	1364	1429	1488	1513	1479	1418	1350	1316
35°	1272	1307	1378	1443	1471	1433	1362	1291	1256
37.5°	1194	1240	1311	1384	1425	1384	1302	1221	1182
40°	1117	1158	1232	1310	1362	1322	1236	1154	1108
42.5°	1036	1075	1154	1230	1291	1250	1162	1073	1036
45°	952	986	1063	1148	1198	1158	1068	989	944
47.5°	857	899	972	1049	1099	1058	982	899	855
50°	757	808	891	952	986	951	887	805	762
52.5°	678	726	796	844	876	839	794	722	683
55°	603	642	704	741	764	728	697	632	598
57.5°	532	553	609	638	646	617	591	547	529
60°	467	471	510	543	548	517	492	466	464
62.5°	408	400	424	463	463	438	403	389	400
65°	365	338	344	391	397	368	318	326	348
67.5°	316	294	283	335	340	320	258	277	302
70°	271	249	226	289	296	276	211	236	253
72.5°	228	217	188	256	258	245	177	206	213
75°	195	186	162	221	229	215	156	177	181
77.5°	168	158	143	189	205	187	141	150	158
80°	142	128	126	158	177	159	128	123	135
82.5°	112	100	102	130	142	133	108	100	108
85°	73	72	73	96	104	101	80	73	80
87.5°	37	40	40	54	57	58	46	47	46
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)