

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: 236P178C

Luminaire Tested: **I8-232-G-UNV-EB81-UPL**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 236P178C
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: I8-232-G-UNV-EB81-UPL
Description: I8 SERIES LUMINAIRE WITH HIGH REFLECTANCE WHITE WIDE
DISTRIBUTION REFLECTOR AND UPLIGHT
Light Source: TWO 32 WATTS T8 - 2800 LUMENS EA - SYLVANIA - F032/735
Ballast/Driver: ULTRAMAX GE-232-MAX-N/ULTRA

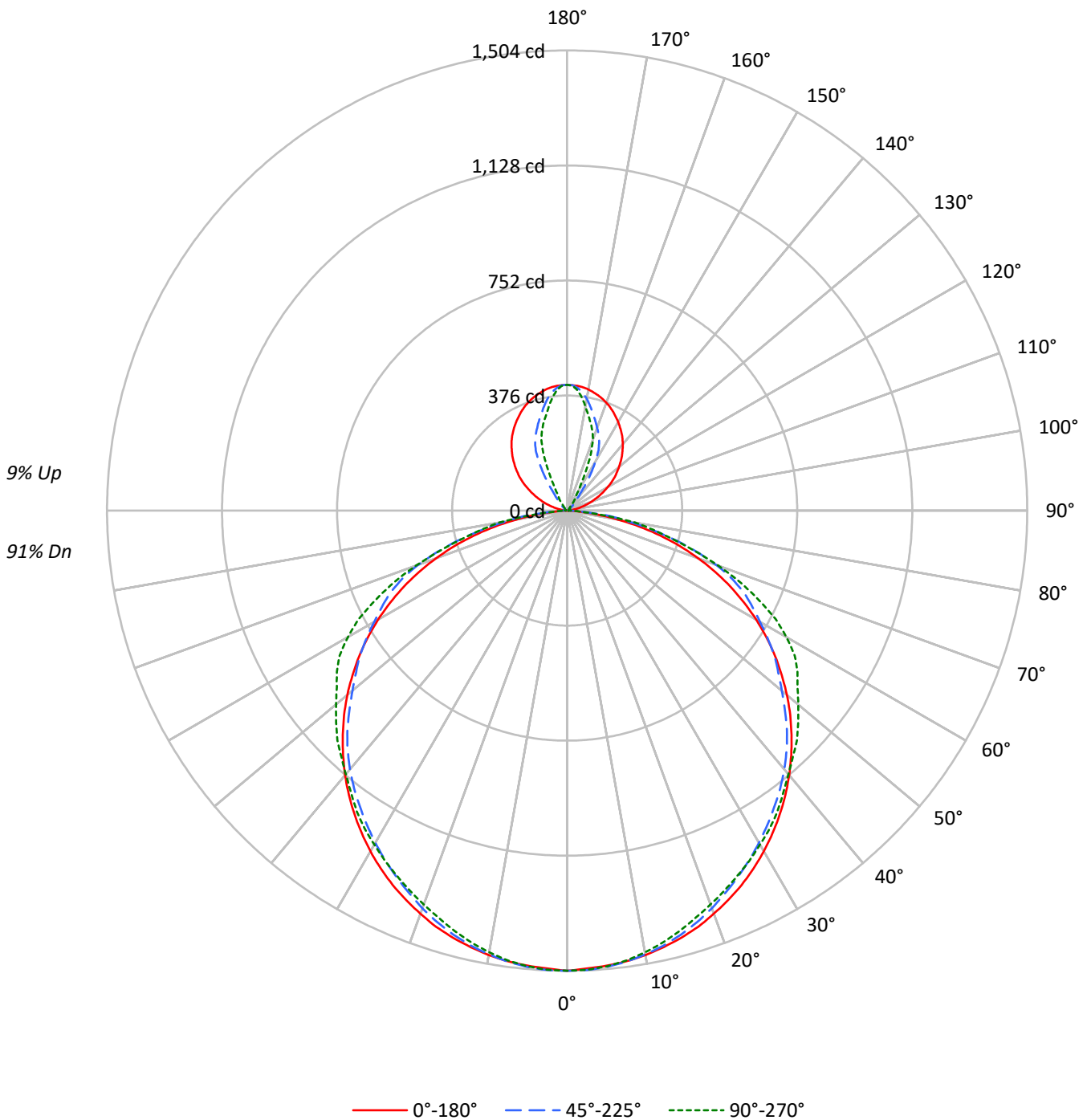
Summary

Lumens per Lamp: 2800 (2 lamps)
Luminaire Lumens: 4980.7 lumens
Efficiency: 88.9%
Efficacy: 88.9 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.25 / 1.38
Luminous Opening: Rectangular (W 0.84' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 56
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	104	104	104	104	100	100	100	100	94	94	94	88	88	88	83	83	83	81
1	95	90	86	83	91	87	84	81	82	79	77	77	75	73	73	71	69	67
2	86	78	72	67	83	76	70	65	71	67	63	67	63	60	63	60	57	55
3	78	68	61	55	75	66	60	54	62	57	52	59	54	50	56	52	48	46
4	71	60	52	46	68	59	51	46	55	49	44	52	47	43	49	45	41	39
5	65	54	46	40	63	52	45	39	49	43	38	47	41	37	44	39	36	33
6	60	48	40	34	58	47	39	34	44	38	33	42	36	32	40	35	31	29
7	56	44	36	30	54	42	35	30	40	34	29	38	33	28	36	31	28	26
8	52	40	32	27	50	39	32	27	37	30	26	35	29	25	33	28	25	23
9	48	36	29	24	47	35	29	24	34	28	23	32	27	23	31	26	22	20
10	45	33	26	22	44	33	26	22	31	25	21	30	24	21	29	24	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4797	4797	4797
5°	4780	4793	4786
10°	4777	4770	4748
15°	4771	4738	4695
20°	4758	4694	4650
25°	4751	4649	4635
30°	4736	4618	4644
35°	4719	4598	4668
40°	4700	4596	4684
45°	4677	4583	4790
50°	4654	4545	4892
55°	4615	4598	5110
60°	4554	4644	5281
65°	4445	4822	5215
70°	4252	4830	4905
75°	3882	4424	4338
80°	3086	3692	4114
85°	1464	2232	1720



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	142.1	2.9	2.5	0°	1504	1504	1504	1504	1504	
10°-20°	404.9	8.1	7.2	5°	1493	1495	1497	1498	1495	142
20°-30°	612.7	12.3	10.9	15°	1445	1443	1435	1429	1422	408
30°-40°	746.5	15.0	13.3	25°	1350	1340	1321	1320	1317	622
40°-50°	792.5	15.9	14.2	35°	1212	1190	1181	1197	1199	758
50°-60°	753.6	15.1	13.5	45°	1037	999	1016	1044	1062	800
60°-70°	615.7	12.4	11.0	55°	830	783	827	889	919	741
70°-80°	360.3	7.2	6.4	65°	589	534	639	689	691	582
80°-90°	83.5	1.7	1.5	75°	315	310	359	353	352	331
90°-100°	5.6	0.1	0.1	85°	40	66	61	49	47	62
100°-110°	11.6	0.2	0.2	90°	1	5	6	7	7	2
110°-120°	22.2	0.4	0.4	95°	8	2	4	6	7	10
120°-130°	36.8	0.7	0.7	105°	53	4	5	6	6	57
130°-140°	62.2	1.2	1.1	115°	117	10	7	8	7	116
140°-150°	87.8	1.8	1.6	125°	189	45	8	8	9	168
150°-160°	111.3	2.2	2.0	135°	253	149	33	10	9	195
160°-170°	94.0	1.9	1.7	145°	310	230	104	50	41	194
170°-180°	37.4	0.8	0.7	155°	356	300	248	181	150	164
0°-30°	1159.6	23.3	20.7	165°	390	367	326	304	297	110
0°-40°	1906.1	38.3	34.0	175°	409	407	402	397	394	39
0°-60°	3452.2	69.3	61.6	180°	411	411	411	411	411	
0°-90°	4511.7	90.6	80.6							
90°-120°	39.4	0.8	0.7							
90°-150°	226.3	4.5	4.0							
90°-180°	469.0	9.4	8.4							
0°-180°	4980.7	100.0	88.9							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1504	1504	1504	1504	1504
2.5°	1498	1500	1503	1505	1502
5°	1493	1495	1497	1498	1495
7.5°	1486	1487	1487	1486	1483
10°	1475	1476	1473	1471	1466
12.5°	1461	1461	1456	1452	1446
15°	1445	1443	1435	1429	1422
17.5°	1426	1422	1411	1402	1396
20°	1402	1398	1383	1375	1370
22.5°	1377	1370	1352	1348	1344
25°	1350	1340	1321	1320	1317
27.5°	1319	1307	1288	1290	1290
30°	1286	1270	1254	1261	1261
32.5°	1250	1231	1218	1229	1232
35°	1212	1190	1181	1197	1199
37.5°	1172	1145	1144	1160	1161
40°	1129	1098	1104	1119	1125
42.5°	1084	1049	1062	1080	1092
45°	1037	999	1016	1044	1062
47.5°	989	947	965	1010	1024
50°	938	894	916	969	986
52.5°	884	839	870	927	949
55°	830	783	827	889	919
57.5°	773	726	777	854	882
60°	714	665	728	812	828
62.5°	652	599	683	754	768
65°	589	534	639	689	691
67.5°	524	474	584	610	612
70°	456	417	518	530	526
72.5°	386	360	439	441	434
75°	315	310	359	353	352
77.5°	243	257	275	281	285
80°	168	191	201	223	224
82.5°	99	123	144	135	119
85°	40	66	61	49	47
87.5°	11	18	23	24	23
90°	1	5	6	7	7
92.5°	1	2	4	5	4
95°	8	2	4	6	7
97.5°	15	3	4	6	5
100°	26	3	5	6	6
102.5°	39	4	4	5	5
105°	53	4	5	6	6
107.5°	68	4	5	5	5
110°	84	5	7	6	6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	100	6	8	6	6
115°	117	10	7	8	7
117.5°	135	17	7	10	10
120°	153	24	7	9	11
122.5°	171	31	7	8	9
125°	189	45	8	8	9
127.5°	205	65	9	8	8
130°	221	92	15	9	8
132.5°	237	120	24	9	9
135°	253	149	33	10	9
137.5°	268	173	42	16	10
140°	283	194	52	27	17
142.5°	297	212	69	39	29
145°	310	230	104	50	41
147.5°	322	248	144	61	53
150°	334	265	185	85	65
152.5°	345	282	222	132	99
155°	356	300	248	181	150
157.5°	366	318	268	227	202
160°	375	336	287	260	247
162.5°	383	353	307	282	274
165°	390	367	326	304	297
167.5°	396	380	349	326	318
170°	402	392	371	352	345
172.5°	406	400	388	377	372
175°	409	407	402	397	394
177.5°	410	410	410	410	408
180°	411	411	411	411	411

(END OF REPORT)