

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: 236P176C

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

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 236P176C
Test Lab: METALUX LABORATORIES
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: I8-232-UNV-EB81-UPL
Description: I8 SERIES LUMINAIRE WITH SPECULAR ALUMINUM MEDIUM
DISTRIBUTION REFLECTOR AND UPLIGHT
Light Source: TWO 32 WATTS T8 - 2800 LUMENS EA - SYLVANIA - F032/735
Ballast/Driver: ULTRAMAX GE-232-MAX-N/ULTRA

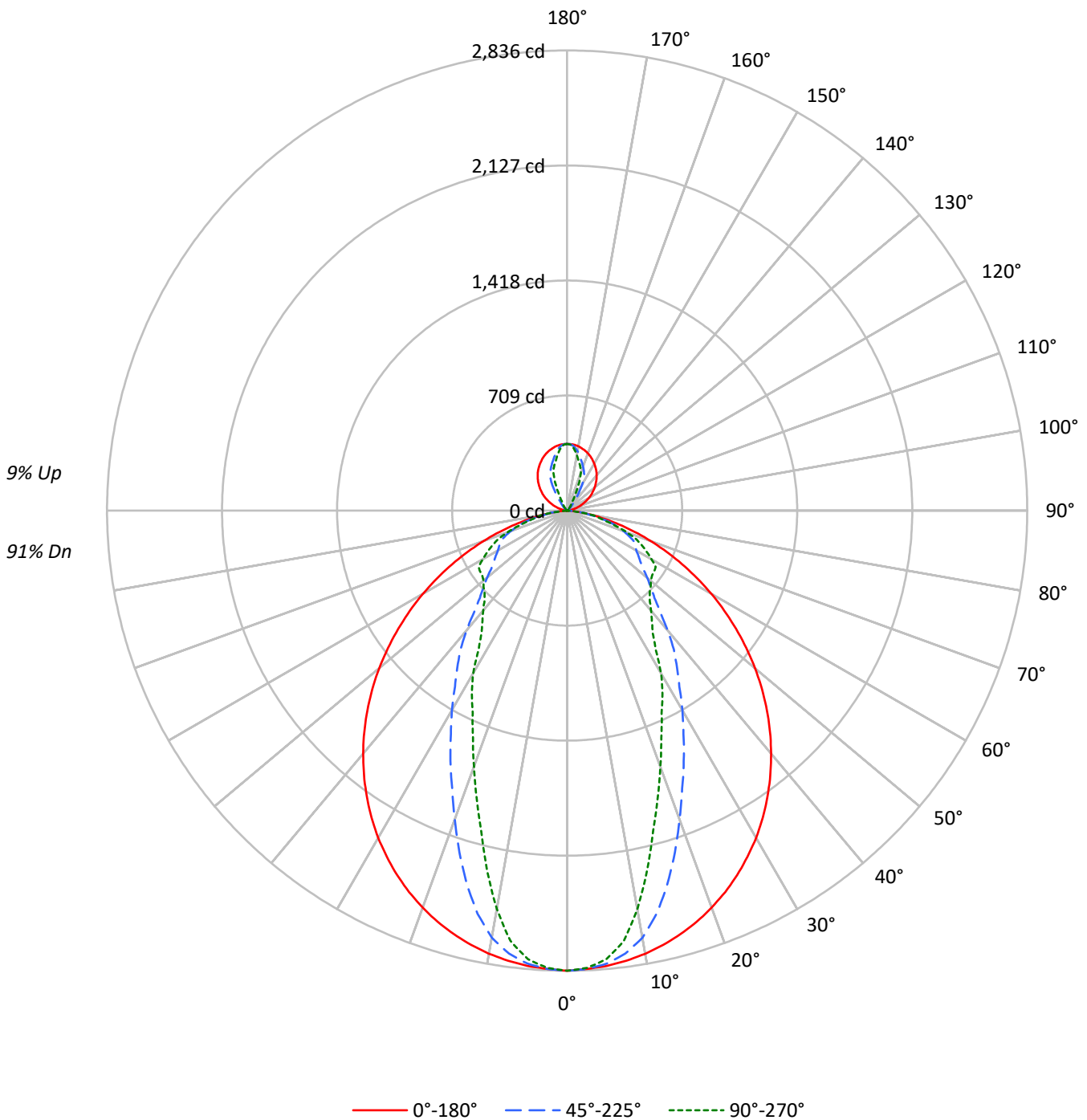
Summary

Lumens per Lamp: 2800 (2 lamps)
Luminaire Lumens: 5257.2 lumens
Efficiency: 93.9%
Efficacy: 93.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 0.72 / 0.94
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	110	110	110	110	106	106	106	106	100	100	100	94	94	94	88	88	88	86
1	101	97	94	90	98	94	91	88	89	86	84	84	82	80	79	77	76	74
2	93	86	80	75	90	83	78	74	79	74	71	75	71	68	71	68	65	63
3	85	76	69	64	82	74	68	63	70	65	61	67	62	59	63	60	57	54
4	79	68	61	55	76	67	60	54	63	57	53	60	55	51	57	53	50	47
5	73	62	54	48	70	60	53	48	57	51	46	55	49	45	52	48	44	42
6	68	56	49	43	66	55	48	42	52	46	41	50	45	40	48	43	40	38
7	63	51	44	39	61	50	43	38	48	42	37	46	41	37	44	39	36	34
8	59	47	40	35	57	46	39	35	45	38	34	43	37	33	41	36	33	31
9	56	44	37	32	54	43	36	32	41	35	31	40	34	30	38	33	30	28
10	52	41	34	29	51	40	33	29	38	33	28	37	32	28	36	31	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9045	9045	9045
5°	9019	8974	8887
10°	8980	8657	8077
15°	8922	7878	6756
20°	8838	6869	5699
25°	8724	5986	4849
30°	8577	5226	4265
35°	8383	4590	3574
40°	8144	4013	3351
45°	7857	3432	3243
50°	7502	3190	3339
55°	7067	3064	3642
60°	6551	3138	3834
65°	5901	3449	3849
70°	5101	3432	3655
75°	4079	3253	2982
80°	2755	2443	2939
85°	1025	1134	146



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	262.7	5.0	4.7	0°	2836	2836	2836	2836	2836	
10°-20°	667.6	12.7	11.9	5°	2817	2814	2803	2788	2776	267
20°-30°	841.6	16.0	15.0	15°	2702	2646	2386	2136	2046	762
30°-40°	839.5	16.0	15.0	25°	2479	2235	1701	1446	1378	1141
40°-50°	743.3	14.1	13.3	35°	2153	1652	1179	970	918	1346
50°-60°	630.4	12.0	11.3	45°	1742	1112	761	720	719	1342
60°-70°	482.3	9.2	8.6	55°	1271	680	551	617	655	1136
70°-80°	268.7	5.1	4.8	65°	782	357	457	499	510	775
80°-90°	52.3	1.0	0.9	75°	331	210	264	249	242	356
90°-100°	5.4	0.1	0.1	85°	28	43	31	7	4	51
100°-110°	11.6	0.2	0.2	90°	0	4	5	6	5	1
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	1.7	1.6	125°	189	45	8	8	9	168
150°-160°	111.3	2.1	2.0	135°	253	149	33	10	9	195
160°-170°	94.0	1.8	1.7	145°	310	230	104	50	41	194
170°-180°	37.4	0.7	0.7	155°	356	300	248	181	150	164
0°-30°	1771.9	33.7	31.6	165°	390	367	326	304	297	110
0°-40°	2611.4	49.7	46.6	175°	409	407	402	397	394	39
0°-60°	3985.1	75.8	71.2	180°	411	411	411	411	411	
0°-90°	4788.4	91.1	85.5							
90°-120°	39.2	0.7	0.7							
90°-150°	226.1	4.3	4.0							
90°-180°	469.0	8.9	8.4							
0°-180°	5257.2	100.0	93.9							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2836	2836	2836	2836	2836
2.5°	2827	2830	2828	2826	2821
5°	2817	2814	2803	2788	2776
7.5°	2798	2789	2753	2704	2676
10°	2773	2754	2673	2552	2494
12.5°	2741	2707	2546	2354	2275
15°	2702	2646	2386	2136	2046
17.5°	2657	2571	2208	1935	1855
20°	2604	2477	2024	1763	1679
22.5°	2545	2363	1853	1596	1516
25°	2479	2235	1701	1446	1378
27.5°	2406	2096	1552	1323	1272
30°	2329	1952	1419	1223	1158
32.5°	2244	1801	1287	1101	1015
35°	2153	1652	1179	970	918
37.5°	2057	1509	1080	881	857
40°	1956	1373	964	822	805
42.5°	1851	1240	847	769	754
45°	1742	1112	761	720	719
47.5°	1629	992	699	682	698
50°	1512	881	643	659	673
52.5°	1392	780	590	632	659
55°	1271	680	551	617	655
57.5°	1149	578	522	610	646
60°	1027	485	492	592	601
62.5°	903	413	472	545	555
65°	782	357	457	499	510
67.5°	662	307	416	452	460
70°	547	266	368	398	392
72.5°	436	235	321	324	314
75°	331	210	264	249	242
77.5°	235	176	193	190	196
80°	150	134	133	155	160
82.5°	79	84	99	90	74
85°	28	43	31	7	4
87.5°	8	8	6	6	5
90°	0	4	5	6	5
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)