

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: NEO-RAY

Report Number: BAL 8212

Luminaire Tested: **301IP-4FT**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: BAL 8212
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: 301IP-4FT
Description: 4'DIR/INDIRECT LUMINAIRE WATTS=172
PERFORATED METAL W/ OVERLAY-DWN, OPEN TOP
Light Source: 2-F50BX/SPX30/RS
Ballast/Driver: -

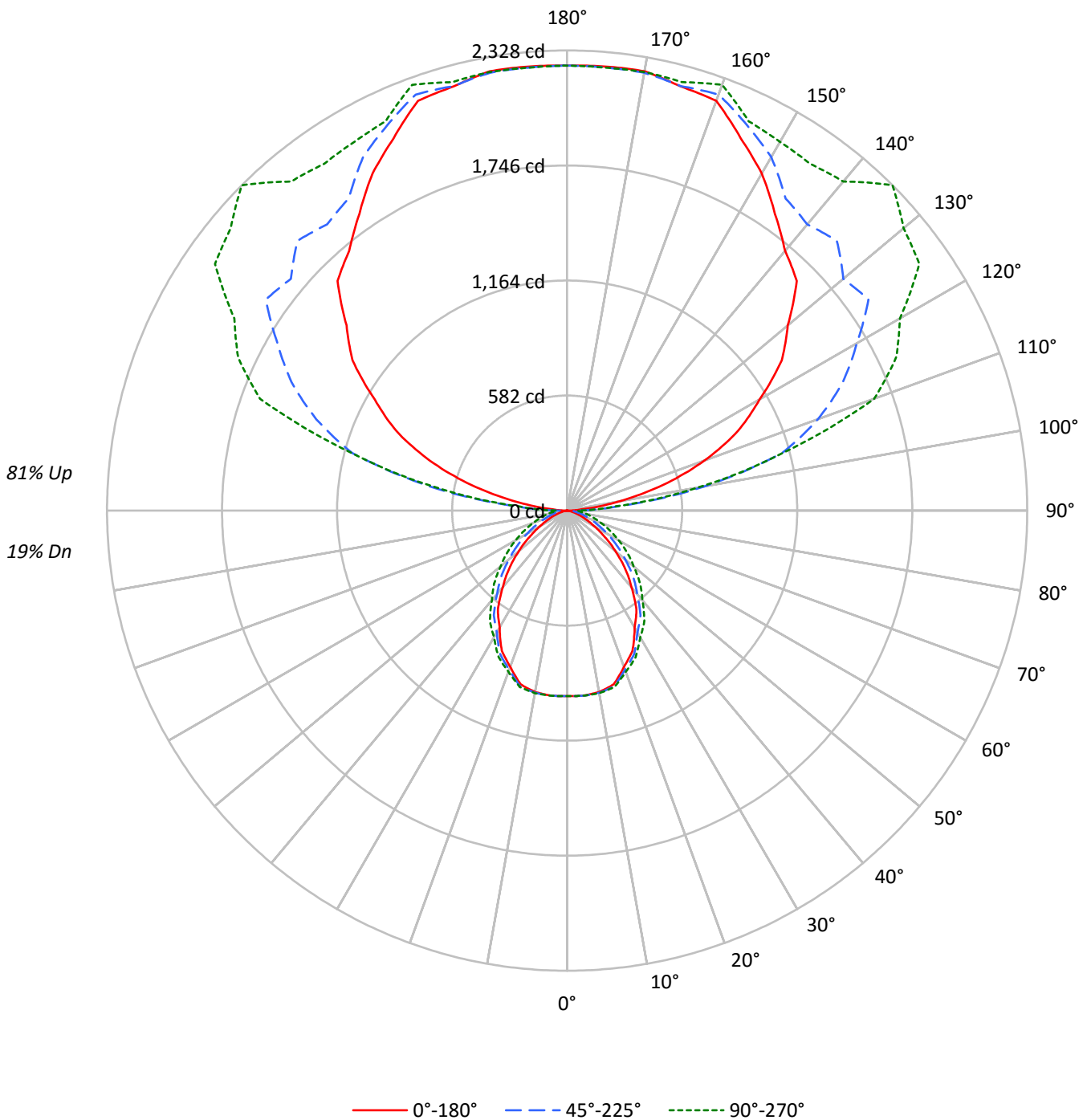
Summary

Lumens per Lamp: 4300 (4 lamps)
Luminaire Lumens: 10917.4 lumens
Efficiency: 63.5%
Efficacy: 63.5 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.18 / 1.22
Luminous Opening: Rectangular w/ Sides (W: 1.29' x L: 3.81' x H: 0.29')
CIE Type: Semi-Indirect

Input Watts (W): 172
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	63	63	63	63	56	56	56	56	42	42	42	29	29	29	17	17	17	12
1	58	55	53	51	51	49	47	45	37	35	34	26	25	24	15	15	15	10
2	53	48	45	42	46	43	40	37	32	30	29	23	21	20	14	13	13	9
3	48	42	38	35	42	38	34	31	29	26	24	20	19	17	12	12	11	8
4	44	38	33	29	39	33	29	26	25	23	21	18	16	15	11	10	9	7
5	40	33	29	25	35	30	26	23	23	20	18	16	14	13	10	9	8	6
6	37	30	25	22	33	27	22	20	20	17	15	15	13	11	9	8	7	5
7	34	27	22	19	30	24	20	17	18	16	13	13	11	10	8	7	7	5
8	32	24	20	17	28	22	18	15	17	14	12	12	10	9	8	7	6	4
9	29	22	18	15	26	20	16	13	15	12	11	11	9	8	7	6	5	4
10	27	20	16	13	24	18	14	12	14	11	9	10	8	7	7	6	5	3

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2049	2049	2049
5°	2048	2024	2022
10°	2040	2001	2001
15°	2017	1968	1971
20°	1902	1847	1865
25°	1820	1758	1786
30°	1650	1597	1651
35°	1547	1499	1568
40°	1359	1332	1419
45°	1191	1201	1316
50°	991	1035	1176
55°	800	893	1068
60°	606	743	945
65°	462	610	829
70°	327	483	717
75°	217	390	627
80°	79	296	546
85°	0	240	469



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	89.5	0.8	0.5
10°-20°	256.0	2.3	1.5
20°-30°	365.0	3.3	2.1
30°-40°	399.8	3.7	2.3
40°-50°	360.8	3.3	2.1
50°-60°	272.6	2.5	1.6
60°-70°	171.8	1.6	1.0
70°-80°	90.2	0.8	0.5
80°-90°	40.9	0.4	0.2
90°-100°	306.3	2.8	1.8
100°-110°	1011.6	9.3	5.9
110°-120°	1427.9	13.1	8.3
120°-130°	1556.0	14.3	9.0
130°-140°	1485.6	13.6	8.6
140°-150°	1243.5	11.4	7.2
150°-160°	990.2	9.1	5.8
160°-170°	635.0	5.8	3.7
170°-180°	215.0	2.0	1.2
0°-30°	710.5	6.5	4.1
0°-40°	1110.3	10.2	6.5
0°-60°	1743.7	16.0	10.1
0°-90°	2046.6	18.7	11.9
90°-120°	2745.7	25.1	16.0
90°-150°	7030.7	64.4	40.9
90°-180°	8871.0	81.3	51.6
0°-180°	10917.4	100.0	63.5

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	938	938	938	938	938	
5°	940	938	940	938	940	89
15°	910	912	920	924	924	254
25°	782	786	802	814	819	356
35°	611	623	646	672	681	377
45°	415	431	472	509	522	319
55°	233	256	306	353	371	210
65°	104	122	172	221	238	105
75°	33	46	83	122	137	36
85°	0	9	33	58	67	2
90°	0	17	29	46	54	10
95°	73	287	271	254	248	123
105°	503	779	1126	1155	1134	530
115°	955	1097	1540	1765	1837	935
125°	1326	1363	1861	2109	2175	1171
135°	1643	1711	1930	2216	2328	1248
145°	1833	1880	1927	2080	2142	1152
155°	2078	2090	2152	2172	2173	961
165°	2221	2227	2223	2240	2244	630
175°	2255	2253	2250	2249	2249	215
180°	2251	2251	2251	2251	2251	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	938	938	938	938	938
5°	940	938	940	938	940
10°	932	932	936	934	938
15°	910	912	920	924	924
20°	841	845	856	864	868
25°	782	786	802	814	819
30°	683	693	711	732	740
35°	611	623	646	672	681
40°	507	520	551	580	592
45°	415	431	472	509	522
50°	318	338	382	423	439
55°	233	256	306	353	371
60°	157	182	233	281	301
65°	104	122	172	221	238
70°	62	75	120	165	182
75°	33	46	83	122	137
80°	9	23	52	85	99
85°	0	9	33	58	67
90°	0	17	29	46	54
95°	73	287	271	254	248
100°	264	578	705	685	672
105°	503	779	1126	1155	1134
110°	740	1004	1350	1587	1653
115°	955	1097	1540	1765	1837
120°	1124	1206	1692	1874	1944
125°	1326	1363	1861	2109	2175
130°	1457	1495	1824	2148	2222
135°	1643	1711	1930	2216	2328
140°	1715	1785	1890	2100	2173
145°	1833	1880	1927	2080	2142
150°	1969	1997	2065	2111	2154
155°	2078	2090	2152	2172	2173
160°	2206	2216	2240	2280	2292
165°	2221	2227	2223	2240	2244
170°	2257	2255	2249	2255	2253
175°	2255	2253	2250	2249	2249
180°	2251	2251	2251	2251	2251

(END OF REPORT)