

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: BALLABS TEST NO. 11804.0

Luminaire Tested: **174/2T5**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: BALLABS TEST NO. 11804.0  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: 174/2T5  
Description: 2/28W T5 1x4'RECESSED INDIRECT GRID MNT LUMINAIRE  
Light Source: -  
FP28T5/835  
Ballast/Driver: UNIVERSAL BALLAST #B228PUNV-C

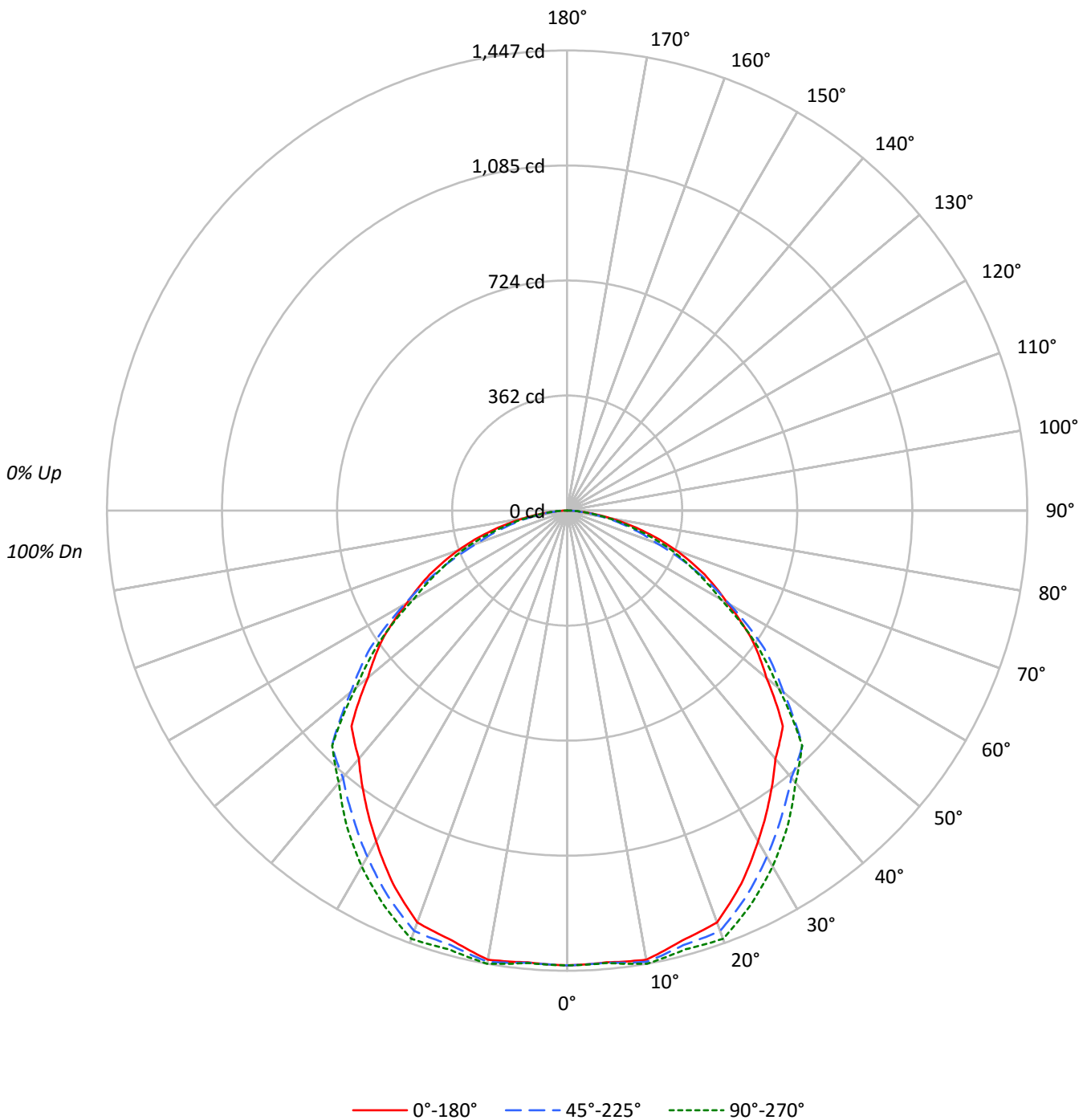
**Summary**

Lumens per Lamp: 2900 (2 lamps)  
Luminaire Lumens: 4045.7 lumens  
Efficiency: 69.8%  
Efficacy: 63.2 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.32 / 1.43  
Luminous Opening: Rectangular (W 0.9' x L: 3.92' x H: 0')  
CIE Type: Direct

Input Watts (W): 64  
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

TEST NUMBER: BALLABS TEST NO. 11804.0  
CATALOG NUMBER: 174/2T5

### Luminous Intensity Polar Plot





TEST NUMBER: BALLABS TEST NO. 11804.0  
 CATALOG NUMBER: 174/2T5

**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	83	83	83	83	81	81	81	81	78	78	78	74	74	74	71	71	71	70
1	76	73	70	68	74	71	69	66	68	66	64	66	64	62	63	62	61	59
2	69	64	59	55	68	63	58	55	60	57	53	58	55	52	56	53	51	50
3	63	56	51	46	62	55	50	46	53	49	45	51	47	44	49	46	44	42
4	58	50	44	39	57	49	43	39	47	42	39	46	41	38	44	40	37	36
5	54	45	38	34	52	44	38	34	42	37	33	41	37	33	40	36	33	31
6	49	40	34	30	48	40	34	30	38	33	29	37	33	29	36	32	29	27
7	46	36	30	26	45	36	30	26	35	30	26	34	29	26	33	29	26	24
8	43	33	27	23	42	33	27	23	32	27	23	31	26	23	30	26	23	22
9	40	31	25	21	39	30	25	21	29	24	21	29	24	21	28	24	21	19
10	37	28	23	19	36	28	23	19	27	22	19	26	22	19	26	22	19	18

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	4386	4386	4386
5°	4390	4393	4396
10°	4466	4488	4506
15°	4442	4490	4537
20°	4498	4592	4677
25°	4382	4521	4626
30°	4253	4452	4576
35°	4152	4399	4527
40°	4080	4392	4472
45°	4160	4537	4533
50°	3903	4237	4137
55°	3802	4048	3855
60°	3570	3619	3417
65°	3462	3229	3186
70°	3255	2690	2995
75°	2927	2394	2607
80°	2437	1978	2155
85°	1548	1513	1619



TEST NUMBER: BALLABS TEST NO. 11804.0  
 CATALOG NUMBER: 174/2T5

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	136.7	3.4	2.4
10°-20°	401.9	9.9	6.9
20°-30°	614.3	15.2	10.6
30°-40°	731.3	18.1	12.6
40°-50°	771.8	19.1	13.3
50°-60°	653.9	16.2	11.3
60°-70°	451.3	11.2	7.8
70°-80°	230.1	5.7	4.0
80°-90°	54.3	1.3	0.9
90°-100°	0.0	0.0	0.0
100°-110°	0.0	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°	1153.0	28.5	19.9
0°-40°	1884.3	46.6	32.5
0°-60°	3310.0	81.8	57.1
0°-90°	4045.7	100.0	69.8
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°	4045.7	100.0	69.8

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1430	1430	1430	1430	1430	
5°	1426	1426	1427	1428	1428	136
15°	1399	1404	1414	1426	1429	397
25°	1295	1306	1336	1359	1367	596
35°	1109	1132	1175	1201	1209	695
45°	959	998	1046	1049	1045	725
55°	711	749	757	729	721	631
65°	477	489	445	430	439	470
75°	247	204	202	217	220	262
85°	44	38	43	44	46	62
90°	0	0	0	0	0	



TEST NUMBER: BALLABS TEST NO. 11804.0

CATALOG NUMBER: 174/2T5

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1430	1430	1430	1430	1430
5°	1426	1426	1427	1428	1428
10°	1434	1436	1441	1446	1447
15°	1399	1404	1414	1426	1429
20°	1378	1387	1407	1427	1433
25°	1295	1306	1336	1359	1367
30°	1201	1217	1257	1283	1292
35°	1109	1132	1175	1201	1209
40°	1019	1050	1097	1116	1117
45°	959	998	1046	1049	1045
50°	818	857	888	875	867
55°	711	749	757	729	721
60°	582	611	590	561	557
65°	477	489	445	430	439
70°	363	345	300	326	334
75°	247	204	202	217	220
80°	138	97	112	119	122
85°	44	38	43	44	46
90°	0	0	0	0	0

(END OF REPORT)