

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. 11803.0

Luminaire Tested: **174/1T5**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: BALLABS TEST NO. 11803.0  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: 174/1T5  
Description: 1/28W T5 1x4'RECESSED INDIRECT GRID MNT LUMINAIRE  
Light Source: -  
FP28T5/835  
Ballast/Driver: UNIVERSAL BALLAST #B228PUNV-C

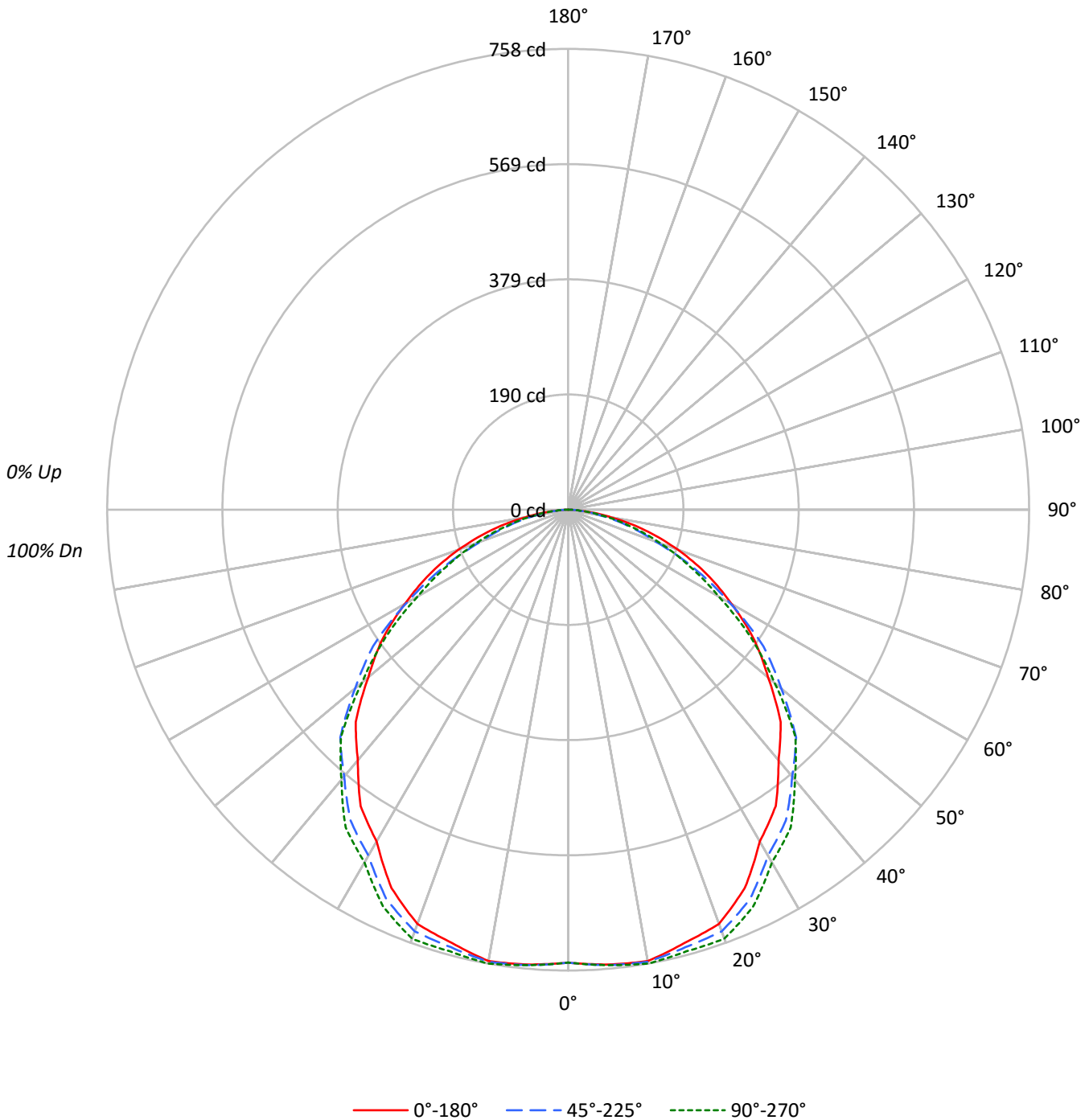
**Summary**

Lumens per Lamp: 2900 (1 lamp)  
Luminaire Lumens: 2103.4 lumens  
Efficiency: 72.5%  
Efficacy: 65.7 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.33 / 1.42  
Luminous Opening: Rectangular (W 0.9' x L: 3.92' x H: 0')  
CIE Type: Direct

Input Watts (W): 32  
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	86	86	86	86	84	84	84	84	81	81	81	77	77	77	74	74	74	73
1	79	76	73	70	77	74	72	69	71	69	67	68	67	65	66	64	63	62
2	72	67	62	58	70	65	61	57	63	59	56	60	57	55	58	56	53	52
3	66	59	53	48	64	58	52	48	55	51	47	53	49	46	52	48	45	44
4	61	52	46	41	59	51	45	41	49	44	40	48	43	40	46	42	39	38
5	56	47	40	35	54	46	40	35	44	39	35	43	38	35	42	37	34	33
6	52	42	36	31	50	41	35	31	40	35	31	39	34	30	38	33	30	29
7	48	38	32	27	47	38	32	27	36	31	27	35	31	27	34	30	27	25
8	44	35	29	24	43	34	28	24	33	28	24	32	28	24	32	27	24	23
9	42	32	26	22	41	31	26	22	31	25	22	30	25	22	29	25	22	20
10	39	29	24	20	38	29	24	20	28	23	20	28	23	20	27	23	20	18

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

	0°	45°	90°
0°	2285	2285	2285
5°	2312	2315	2315
10°	2348	2351	2361
15°	2343	2365	2388
20°	2366	2409	2451
25°	2325	2393	2436
30°	2231	2327	2373
35°	2228	2336	2389
40°	2154	2294	2322
45°	2143	2299	2290
50°	2047	2181	2114
55°	2000	2096	1962
60°	1902	1883	1754
65°	1829	1662	1597
70°	1713	1363	1444
75°	1552	1197	1256
80°	1272	971	1042
85°	774	669	774



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	71.8	3.4	2.5
10°-20°	211.2	10.0	7.3
20°-30°	323.2	15.4	11.1
30°-40°	385.7	18.3	13.3
40°-50°	397.0	18.9	13.7
50°-60°	338.8	16.1	11.7
60°-70°	232.8	11.1	8.0
70°-80°	116.1	5.5	4.0
80°-90°	26.7	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°	606.2	28.8	20.9
0°-40°	992.0	47.2	34.2
0°-60°	1727.8	82.1	59.6
0°-90°	2103.4	100.0	72.5
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°	2103.4	100.0	72.5

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	745	745	745	745	745	
5°	751	752	752	752	752	72
15°	738	739	745	749	752	209
25°	687	692	707	717	720	315
35°	595	608	624	635	638	369
45°	494	513	530	531	528	378
55°	374	390	392	376	367	333
65°	252	256	229	219	220	249
75°	131	108	101	105	106	138
85°	22	18	19	22	22	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	745	745	745	745	745
5°	751	752	752	752	752
10°	754	754	755	757	758
15°	738	739	745	749	752
20°	725	730	738	748	751
25°	687	692	707	717	720
30°	630	638	657	667	670
35°	595	608	624	635	638
40°	538	554	573	581	580
45°	494	513	530	531	528
50°	429	444	457	449	443
55°	374	390	392	376	367
60°	310	322	307	290	286
65°	252	256	229	219	220
70°	191	179	152	159	161
75°	131	108	101	105	106
80°	72	51	55	59	59
85°	22	18	19	22	22
90°	0	0	0	0	0

(END OF REPORT)