

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. 10830.0

Luminaire Tested: **501IP/2T5**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: BALLABS TEST NO. 10830.0  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: 501IP/2T5  
Description: 2/28W T5 LAMP 4'DIR/INDIRECT PENDANT MNT LUMINAIRE  
PERF SIDES w/OVERLAY SEMI-DIFFUSE CENTER REFL IN OPEN TOP  
Light Source: -  
FP28T5/835  
Ballast/Driver: MAGNETEK BALLAST #BT5-228/120      WATTS=64

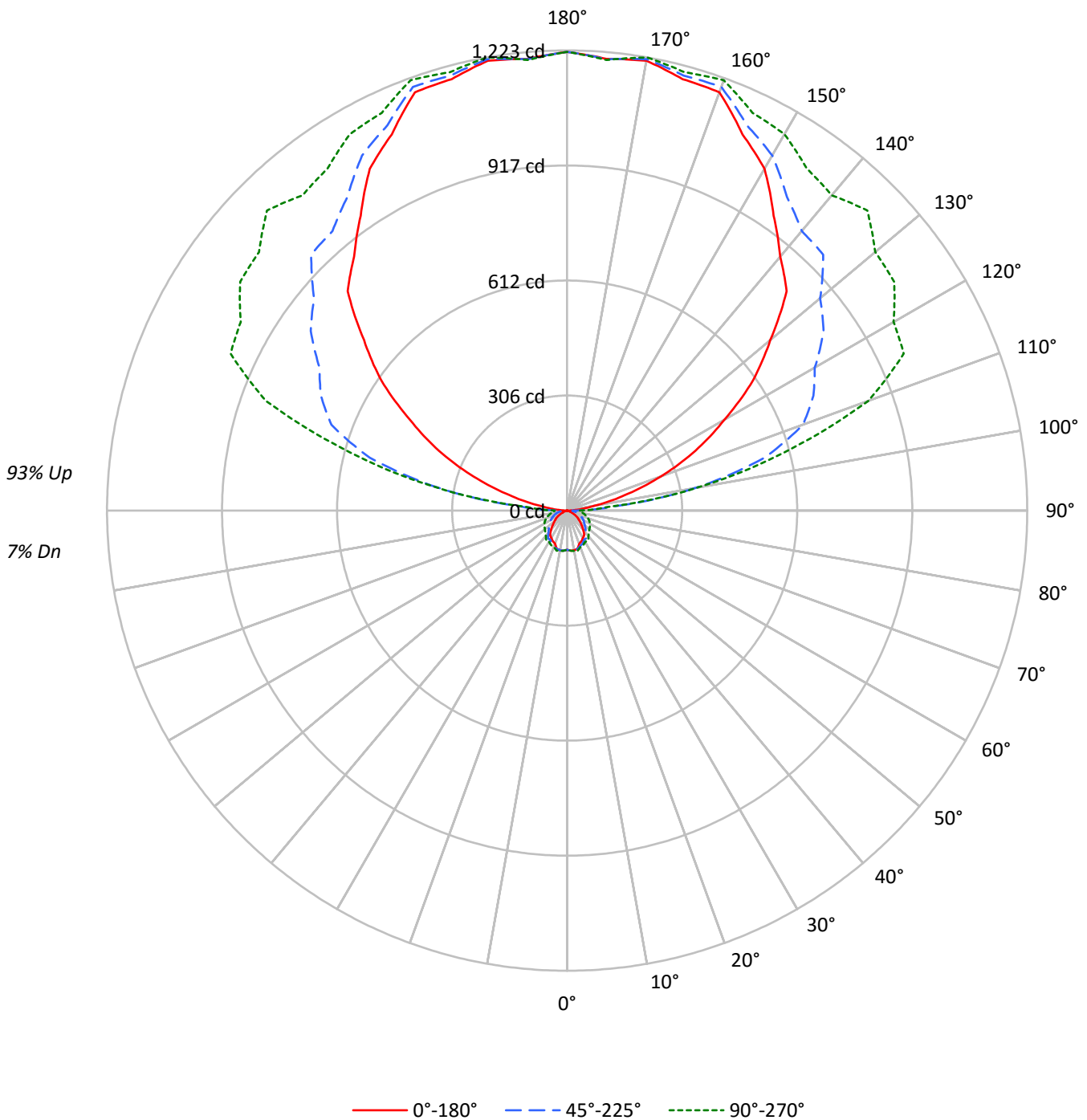
**Summary**

Lumens per Lamp: 2900 (2 lamps)  
Luminaire Lumens: 4735.8 lumens  
Efficiency: 81.7%  
Efficacy: 74.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.42 / 1.38  
Luminous Opening: Rectangular w/ Sides (W: 0.52' x L: 3.75' x H: 0.08')  
CIE Type: Indirect

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

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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	79	79	79	79	68	68	68	68	49	49	49		30	30	30		14	14	14	6
1	72	69	65	63	62	59	57	55	42	41	39		26	26	25		12	11	11	5
2	65	60	55	51	56	52	48	45	37	34	32		23	22	21		10	10	9	4
3	59	52	47	42	51	45	41	37	32	29	27		20	19	17		9	8	8	3
4	54	46	40	36	47	40	35	31	29	25	23		18	16	15		8	7	7	3
5	50	41	35	30	43	35	30	27	25	22	19		16	14	12		7	6	6	2
6	46	36	30	26	39	32	26	23	23	19	17		14	12	11		6	6	5	2
7	42	33	27	22	36	28	23	20	20	17	15		13	11	9		6	5	4	2
8	39	29	23	19	33	26	21	17	18	15	13		12	10	8		5	4	4	2
9	36	27	21	17	31	23	18	15	17	13	11		11	9	7		5	4	3	1
10	33	24	19	15	29	21	16	13	15	12	10		10	8	6		4	4	3	1

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

	0°	45°	90°
0°	573	573	573
5°	591	585	584
10°	596	585	593
15°	595	584	602
20°	547	560	571
25°	542	556	572
30°	528	533	559
35°	523	549	587
40°	466	500	558
45°	412	476	551
50°	359	453	555
55°	326	446	579
60°	265	451	605
65°	174	440	632
70°	137	441	661
75°	79	446	694
80°	0	441	733
85°	0	410	807



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	10.2	0.2	0.2
10°-20°	29.7	0.6	0.5
20°-30°	44.1	0.9	0.8
30°-40°	54.1	1.1	0.9
40°-50°	53.1	1.1	0.9
50°-60°	49.5	1.0	0.9
60°-70°	41.3	0.9	0.7
70°-80°	31.0	0.7	0.5
80°-90°	19.3	0.4	0.3
90°-100°	140.9	3.0	2.4
100°-110°	478.8	10.1	8.3
110°-120°	683.6	14.4	11.8
120°-130°	736.4	15.5	12.7
130°-140°	734.0	15.5	12.7
140°-150°	646.9	13.7	11.2
150°-160°	526.6	11.1	9.1
160°-170°	340.7	7.2	5.9
170°-180°	115.6	2.4	2.0
0°-30°	84.0	1.8	1.4
0°-40°	138.1	2.9	2.4
0°-60°	240.6	5.1	4.1
0°-90°	332.3	7.0	5.7
90°-120°	1303.3	27.5	22.5
90°-150°	3420.6	72.2	59.0
90°-180°	4404.0	93.0	75.9
0°-180°	4735.8	100.0	81.7

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	104	104	104	104	104	
5°	107	105	107	108	107	10
15°	105	105	106	109	110	29
25°	90	93	97	100	101	41
35°	79	84	89	94	97	48
45°	54	59	69	77	82	42
55°	35	42	55	70	74	31
65°	14	24	43	58	65	15
75°	4	12	31	47	52	4
85°	0	2	16	29	36	0
90°	0	4	14	28	33	3
95°	25	115	124	113	108	35
105°	158	314	543	591	597	172
115°	376	478	722	920	987	371
125°	603	658	832	997	1061	535
135°	825	855	962	1082	1128	625
145°	957	970	1018	1082	1110	602
155°	1103	1111	1130	1153	1166	512
165°	1187	1189	1197	1204	1206	338
175°	1205	1204	1204	1204	1202	116
180°	1219	1219	1219	1219	1219	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	104	104	104	104	104
5°	107	105	107	108	107
10°	107	107	107	109	109
15°	105	105	106	109	110
20°	94	94	100	103	103
25°	90	93	97	100	101
30°	84	86	90	96	96
35°	79	84	89	94	97
40°	66	71	77	84	88
45°	54	59	69	77	82
50°	43	50	61	73	77
55°	35	42	55	70	74
60°	25	33	50	66	70
65°	14	24	43	58	65
70°	9	17	37	54	59
75°	4	12	31	47	52
80°	0	6	24	39	44
85°	0	2	16	29	36
90°	0	4	14	28	33
95°	25	115	124	113	108
100°	74	253	348	357	352
105°	158	314	543	591	597
110°	264	393	667	817	851
115°	376	478	722	920	987
120°	482	555	760	936	1002
125°	603	658	832	997	1061
130°	705	743	878	1010	1069
135°	825	855	962	1082	1128
140°	881	898	970	1057	1094
145°	957	970	1018	1082	1110
150°	1049	1060	1090	1134	1155
155°	1103	1111	1130	1153	1166
160°	1183	1187	1198	1213	1217
165°	1187	1189	1197	1204	1206
170°	1214	1216	1218	1221	1223
175°	1205	1204	1204	1204	1202
180°	1219	1219	1219	1219	1219

(END OF REPORT)