

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 11780

Luminaire Tested: **S242TR-2BX50W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: BAL 11780  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S242TR-2BX50W  
Description: 2/50W BIAX 2x2'RECESSED LUMINAIRE w/GRAY TANNENBAUM REFL  
Light Source: -  
FT50W/2G11/835/RS  
Ballast/Driver: ADVANCE BALLAST #REL-2TTS50 WATTS=98

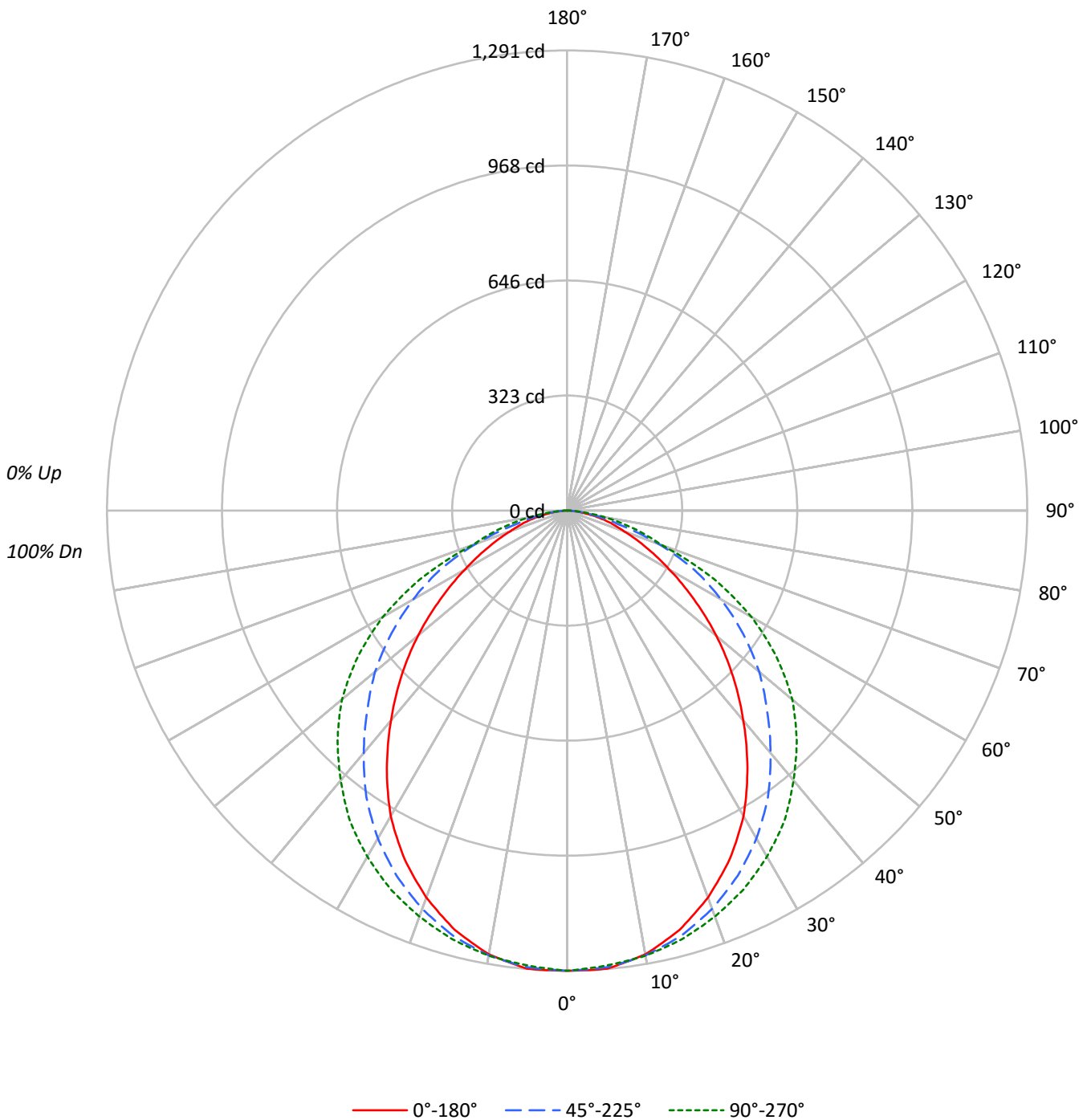
**Summary**

Lumens per Lamp: 4300 (2 lamps)  
Luminaire Lumens: 3306.4 lumens  
Efficiency: 38.4%  
Efficacy: 33.7 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 1.29 / 1.33  
Luminous Opening: Rectangular (W 1.92' x L: 1.92' x H: 0')  
CIE Type: Direct

Input Watts (W): 98  
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	46	46	46	46	45	45	45	45	43	43	43	41	41	41	39	39	39	38
1	42	40	39	37	41	40	38	37	38	37	36	36	35	35	35	34	34	33
2	38	35	33	31	37	35	32	31	33	31	30	32	31	29	31	30	28	28
3	35	31	28	26	34	31	28	26	30	27	25	29	26	25	28	26	24	24
4	32	28	25	22	31	27	24	22	26	24	22	25	23	21	25	23	21	20
5	30	25	22	19	29	25	21	19	24	21	19	23	21	19	22	20	18	18
6	27	22	19	17	27	22	19	17	21	19	17	21	18	16	20	18	16	15
7	26	20	17	15	25	20	17	15	20	17	15	19	16	15	18	16	14	14
8	24	19	15	13	23	18	15	13	18	15	13	17	15	13	17	15	13	12
9	22	17	14	12	22	17	14	12	16	14	12	16	14	12	16	13	12	11
10	21	16	13	11	20	16	13	11	15	13	11	15	12	11	15	12	11	10

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

	0°	45°	90°
0°	3781	3781	3781
5°	3793	3781	3766
10°	3759	3768	3771
15°	3693	3745	3775
20°	3600	3706	3778
25°	3487	3655	3788
30°	3348	3592	3791
35°	3154	3511	3801
40°	2940	3395	3778
45°	2726	3285	3774
50°	2488	3203	3759
55°	2216	3074	3667
60°	1939	2923	3497
65°	1691	2731	3153
70°	1456	2329	2406
75°	1313	1698	2173
80°	1096	1316	1771
85°	739	840	1143



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	122.1	3.7	1.4
10°-20°	347.7	10.5	4.0
20°-30°	519.9	15.7	6.0
30°-40°	610.4	18.5	7.1
40°-50°	609.8	18.4	7.1
50°-60°	528.0	16.0	6.1
60°-70°	364.2	11.0	4.2
70°-80°	167.5	5.1	1.9
80°-90°	36.8	1.1	0.4
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°	989.7	29.9	11.5
0°-40°	1600.1	48.4	18.6
0°-60°	2737.9	82.8	31.8
0°-90°	3306.4	100.0	38.4
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°	3306.4	100.0	38.4

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1291	1291	1291	1291	1291	
5°	1290	1288	1286	1285	1281	122
15°	1218	1221	1235	1244	1245	343
25°	1079	1095	1131	1165	1172	496
35°	882	911	982	1041	1063	551
45°	658	699	793	881	911	508
55°	434	489	602	695	718	390
65°	244	296	394	445	455	245
75°	116	134	150	178	192	123
85°	22	23	25	30	34	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1291	1291	1291	1291	1291
5°	1290	1288	1286	1285	1281
10°	1264	1264	1267	1270	1268
15°	1218	1221	1235	1244	1245
20°	1155	1167	1189	1209	1212
25°	1079	1095	1131	1165	1172
30°	990	1012	1062	1108	1121
35°	882	911	982	1041	1063
40°	769	810	888	963	988
45°	658	699	793	881	911
50°	546	596	703	792	825
55°	434	489	602	695	718
60°	331	393	499	586	597
65°	244	296	394	445	455
70°	170	209	272	273	281
75°	116	134	150	178	192
80°	65	65	78	101	105
85°	22	23	25	30	34
90°	0	0	0	0	0

(END OF REPORT)