

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. 11967.0

Luminaire Tested: **S294 3/28T5 S17A**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: BALLABS TEST NO. 11967.0
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S294 3/28T5 S17A
Description: 3/28W T5 LAMP 2x4'RECESSED GRID MOUNT LUMINAIRE
Light Source: -
FP28WT5/835
Ballast/Driver: 2 UNIVERSAL BALLAST #B228PUNV-C WATTS=97 REFL=92%

Summary

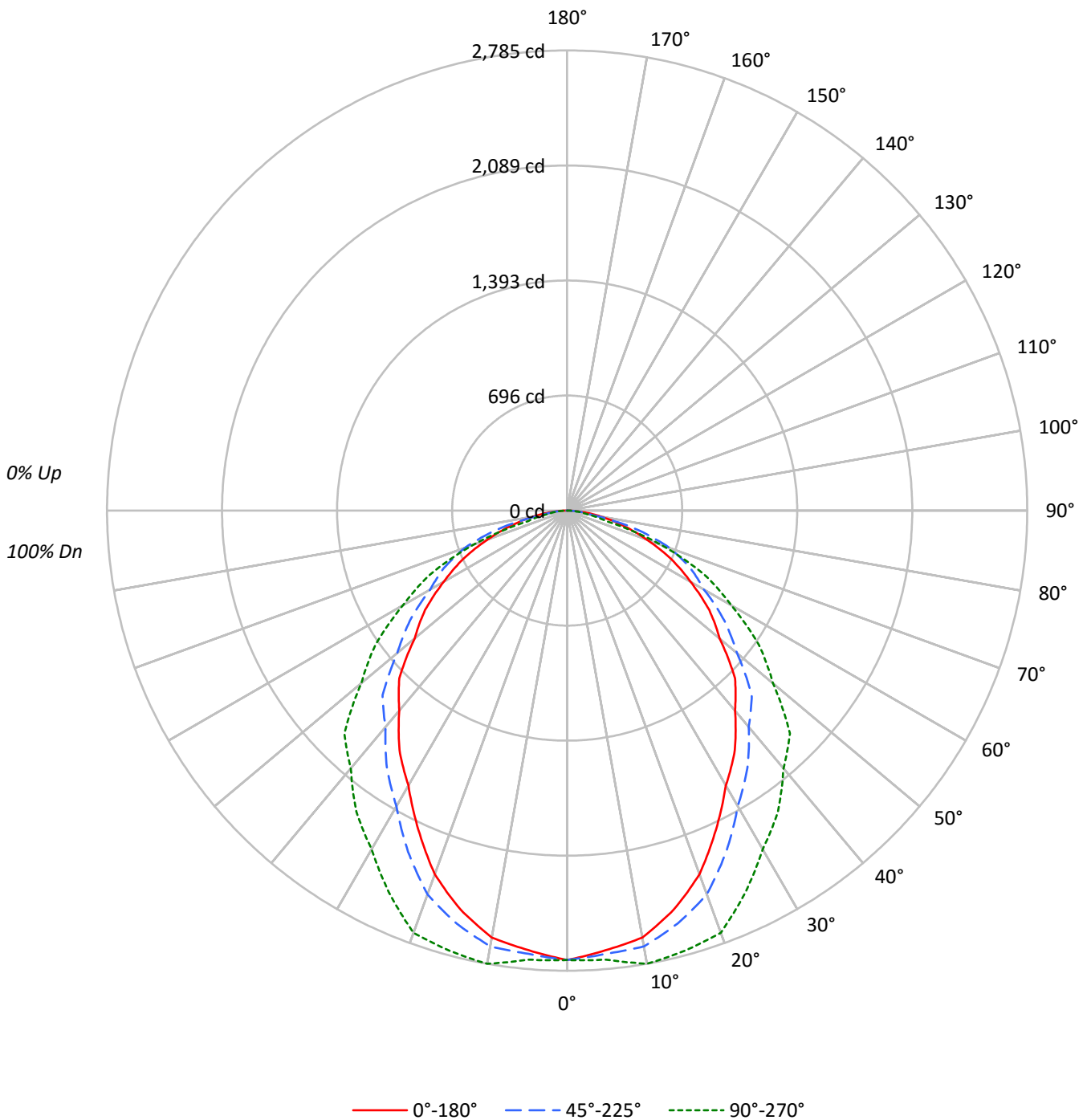
Lumens per Lamp: 2900 (3 lamps)
Luminaire Lumens: 6831.2 lumens
Efficiency: 78.5%
Efficacy: 70.4 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 1.29 / 1.28
Luminous Opening: Rectangular (W 1.92' x L: 3.92' x H: 0')
CIE Type: Direct

Input Watts (W): 97
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										
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	50	30	10	50	30	10	0														
RCR																																						
0	93	93	93	93	91	91	91	91	87	87	87	84	84	84	80	80	80	80	80	80	80	80	80	79														
1	86	82	79	76	84	80	78	75	77	75	73	74	72	70	71	70	68	67	67	67	67	67	67	67														
2	78	72	67	63	76	71	66	62	68	64	60	65	62	59	63	60	58	56	56	56	56	56	56	56														
3	72	64	57	52	70	62	57	52	60	55	51	58	54	50	56	52	49	48	48	48	48	48	48	48														
4	66	56	50	45	64	55	49	44	53	48	44	52	47	43	50	46	43	41	41	41	41	41	41	41														
5	60	51	44	39	59	50	43	38	48	42	38	47	42	38	45	41	37	36	36	36	36	36	36	36														
6	56	46	39	34	54	45	38	34	44	38	33	42	37	33	41	36	33	31	31	31	31	31	31	31														
7	52	42	35	30	51	41	34	30	40	34	30	39	33	29	37	33	29	28	28	28	28	28	28	28														
8	48	38	31	27	47	37	31	27	36	31	27	35	30	26	35	30	26	25	25	25	25	25	25	25														
9	45	35	29	24	44	34	28	24	34	28	24	33	28	24	32	27	24	22	22	22	22	22	22	22														
10	43	32	26	22	42	32	26	22	31	26	22	30	25	22	30	25	22	20	20	20	20	20	20	20														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3899	3899	3899
5°	3843	3875	3925
10°	3820	3898	4054
15°	3709	3839	4092
20°	3573	3771	4148
25°	3371	3603	4035
30°	3180	3420	3918
35°	3097	3328	3894
40°	2959	3200	3812
45°	2913	3203	3866
50°	2687	2993	3628
55°	2624	2904	3541
60°	2471	2744	3291
65°	2357	2788	3107
70°	2138	2758	2532
75°	1927	2387	1351
80°	1692	1255	1007
85°	1382	1020	855



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	257.4	3.8	3.0
10°-20°	734.3	10.7	8.4
20°-30°	1059.6	15.5	12.2
30°-40°	1211.8	17.7	13.9
40°-50°	1229.2	18.0	14.1
50°-60°	1061.0	15.5	12.2
60°-70°	797.5	11.7	9.2
70°-80°	397.4	5.8	4.6
80°-90°	83.0	1.2	1.0
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°	2051.3	30.0	23.6
0°-40°	3263.1	47.8	37.5
0°-60°	5553.3	81.3	63.8
0°-90°	6831.2	100.0	78.5
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°	6831.2	100.0	78.5

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2720	2720	2720	2720	2720	
5°	2671	2677	2693	2716	2728	254
15°	2499	2521	2587	2681	2757	703
25°	2131	2170	2278	2416	2551	982
35°	1770	1811	1902	2062	2225	1103
45°	1437	1494	1580	1731	1907	1093
55°	1050	1092	1162	1287	1417	932
65°	695	752	822	882	916	684
75°	348	423	431	295	244	372
85°	84	69	62	57	52	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2720	2720	2720	2720	2720
5°	2671	2677	2693	2716	2728
10°	2624	2636	2678	2742	2785
15°	2499	2521	2587	2681	2757
20°	2342	2374	2472	2602	2719
25°	2131	2170	2278	2416	2551
30°	1921	1959	2066	2218	2367
35°	1770	1811	1902	2062	2225
40°	1581	1630	1710	1868	2037
45°	1437	1494	1580	1731	1907
50°	1205	1258	1342	1475	1627
55°	1050	1092	1162	1287	1417
60°	862	908	957	1060	1148
65°	695	752	822	882	916
70°	510	579	658	639	604
75°	348	423	431	295	244
80°	205	262	152	130	122
85°	84	69	62	57	52
90°	0	0	0	0	0

(END OF REPORT)