

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. 12076.0

Luminaire Tested: **S254 2/28 T5**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: BALLABS TEST NO. 12076.0
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S254 2/28 T5
Description: 2/28W T5 LAMP 2x4'RECESSED GRID LUMINAIRE
Light Source: -
FP28T5/835
Ballast/Driver: UNIVERSAL BALLAST #B228PUNV-C WATTS=65 REFL=96%

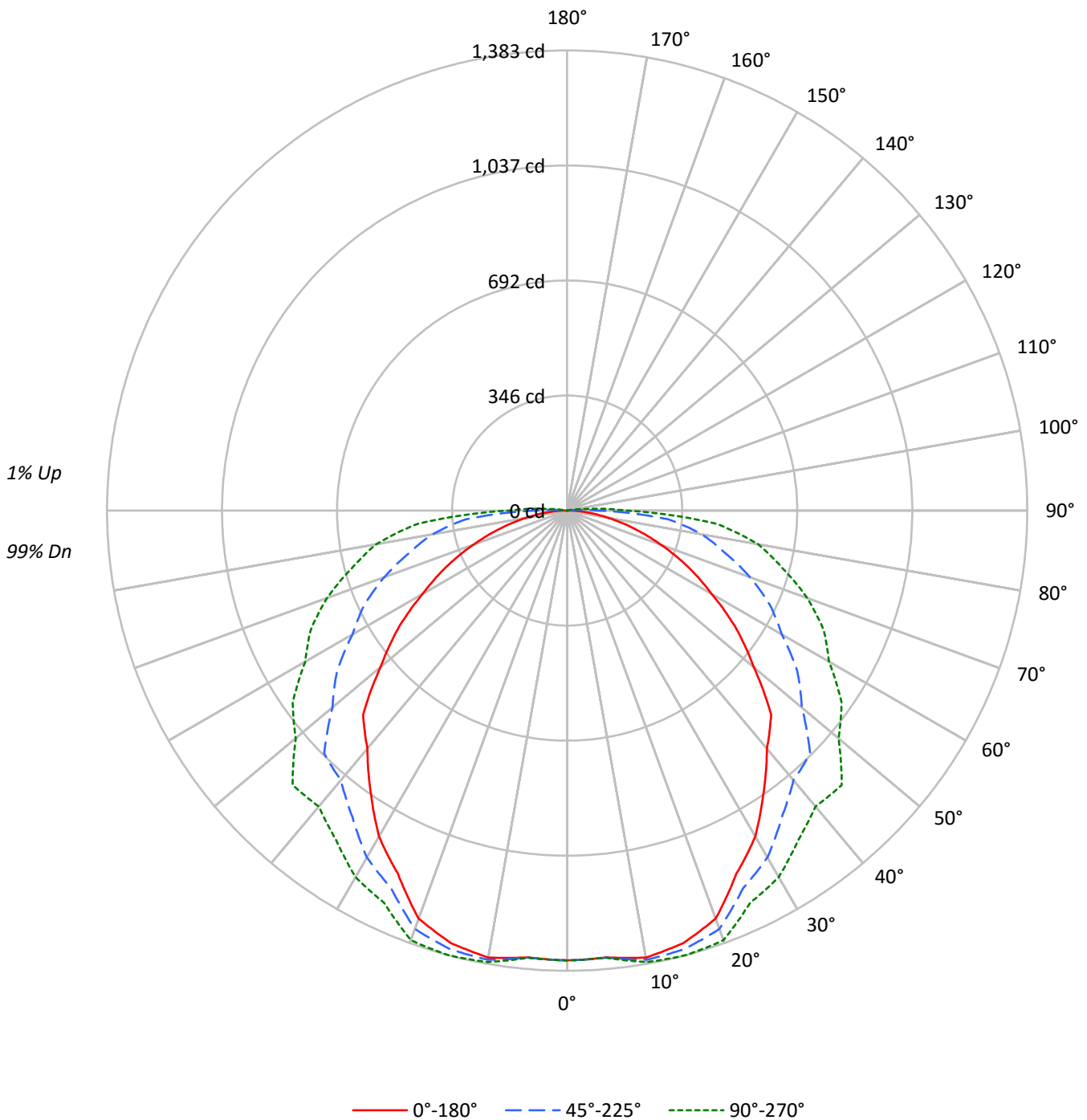
Summary

Lumens per Lamp: 2900 (2 lamps)
Luminaire Lumens: 4769.5 lumens
Efficiency: 82.2%
Efficacy: 73.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.38 / 1.47
Luminous Opening: Rectangular w/ Sides (W: 1.96' x L: 3.88' x H: 0.15')
CIE Type: Direct

Input Watts (W): 65
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	98	98	98	98	95	95	95	95	91	91	91		87	87	87		83	83	83	82
1	87	83	78	74	85	81	77	73	77	74	71		73	71	68		70	68	66	64
2	79	71	64	59	76	69	63	58	66	61	57		63	59	55		61	57	54	52
3	71	62	54	48	69	60	53	48	58	52	47		55	50	46		53	49	45	43
4	65	54	46	40	63	53	46	40	51	44	39		49	43	39		47	42	38	36
5	60	48	40	34	58	47	40	34	45	39	34		44	38	33		42	37	33	31
6	55	43	35	30	53	42	35	30	41	34	29		39	33	29		38	33	29	27
7	51	39	32	26	49	38	31	26	37	31	26		36	30	26		35	29	25	24
8	47	36	28	23	46	35	28	23	34	27	23		33	27	23		32	26	23	21
9	44	33	26	21	43	32	25	21	31	25	21		30	24	20		29	24	20	19
10	41	30	23	19	40	30	23	19	29	23	19		28	22	19		27	22	18	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1916	1916	1916
5°	1911	1905	1906
10°	1949	1945	1957
15°	1955	1959	1989
20°	1941	1961	2017
25°	1850	1887	1966
30°	1811	1884	1995
35°	1736	1843	1989
40°	1675	1835	2021
45°	1674	1918	2176
50°	1544	1855	2156
55°	1458	1875	2248
60°	1335	1856	2281
65°	1244	1928	2460
70°	1123	1990	2641
75°	998	2074	2869
80°	841	2313	3343
85°	637	2609	3941



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	129.6	2.7	2.2
10°-20°	384.9	8.1	6.6
20°-30°	582.3	12.2	10.0
30°-40°	705.3	14.8	12.2
40°-50°	775.3	16.3	13.4
50°-60°	737.7	15.5	12.7
60°-70°	639.8	13.4	11.0
70°-80°	494.9	10.4	8.5
80°-90°	283.9	6.0	4.9
90°-100°	35.7	0.7	0.6
100°-110°	0.2	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°	1096.8	23.0	18.9
0°-40°	1802.1	37.8	31.1
0°-60°	3315.0	69.5	57.2
0°-90°	4733.6	99.2	81.6
90°-120°	35.9	0.8	0.6
90°-150°	35.9	0.8	0.6
90°-180°	36.0	0.8	0.6
0°-180°	4769.5	100.0	82.2

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1352	1352	1352	1352	1352	
5°	1348	1348	1349	1348	1349	129
15°	1346	1350	1364	1376	1383	379
25°	1204	1217	1252	1287	1301	559
35°	1030	1059	1125	1186	1210	646
45°	867	919	1033	1128	1167	657
55°	622	698	845	963	1007	554
65°	401	495	673	803	851	397
75°	208	310	491	622	670	222
85°	56	160	306	412	449	61
90°	6	34	92	153	176	9
95°	0	0	9	38	55	1
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1352	1352	1352	1352	1352
5°	1348	1348	1349	1348	1349
10°	1364	1366	1371	1375	1378
15°	1346	1350	1364	1376	1383
20°	1305	1313	1338	1364	1374
25°	1204	1217	1252	1287	1301
30°	1131	1152	1204	1252	1272
35°	1030	1059	1125	1186	1210
40°	934	974	1058	1132	1161
45°	867	919	1033	1128	1167
50°	732	794	921	1023	1065
55°	622	698	845	963	1007
60°	502	585	745	865	909
65°	401	495	673	803	851
70°	299	397	585	717	768
75°	208	310	491	622	670
80°	125	233	411	538	583
85°	56	160	306	412	449
90°	6	34	92	153	176
95°	0	0	9	38	55
100°	0	0	1	1	2
105°	0	0	0	0	0
110°	0	0	0	0	0
115°	0	0	0	0	0
120°	0	0	0	0	0
125°	0	0	0	0	0
130°	0	0	0	0	0
135°	0	0	0	0	0
140°	0	0	0	0	0
145°	0	0	0	0	0
150°	0	0	0	0	0
155°	0	0	0	0	0
160°	0	0	0	0	0
165°	0	0	0	0	0
170°	0	0	0	0	0
175°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)