

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. 13068.0

Luminaire Tested: **194R-2T8-ETG-1-EB-SI-S17F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: BALLABS TEST NO. 13068.0  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: 194R-2T8-ETG-1-EB-SI-S17F  
Description: 2/32W T8 1x4'DIRECT RECESSED GRID LUMINAIRE w/WHITE REFL  
Light Source: -  
F32T8/835/RS  
Ballast/Driver: UNIVERSAL BALLAST #B232IUNVHP-B WATTS=54 REFL=93%

**Summary**

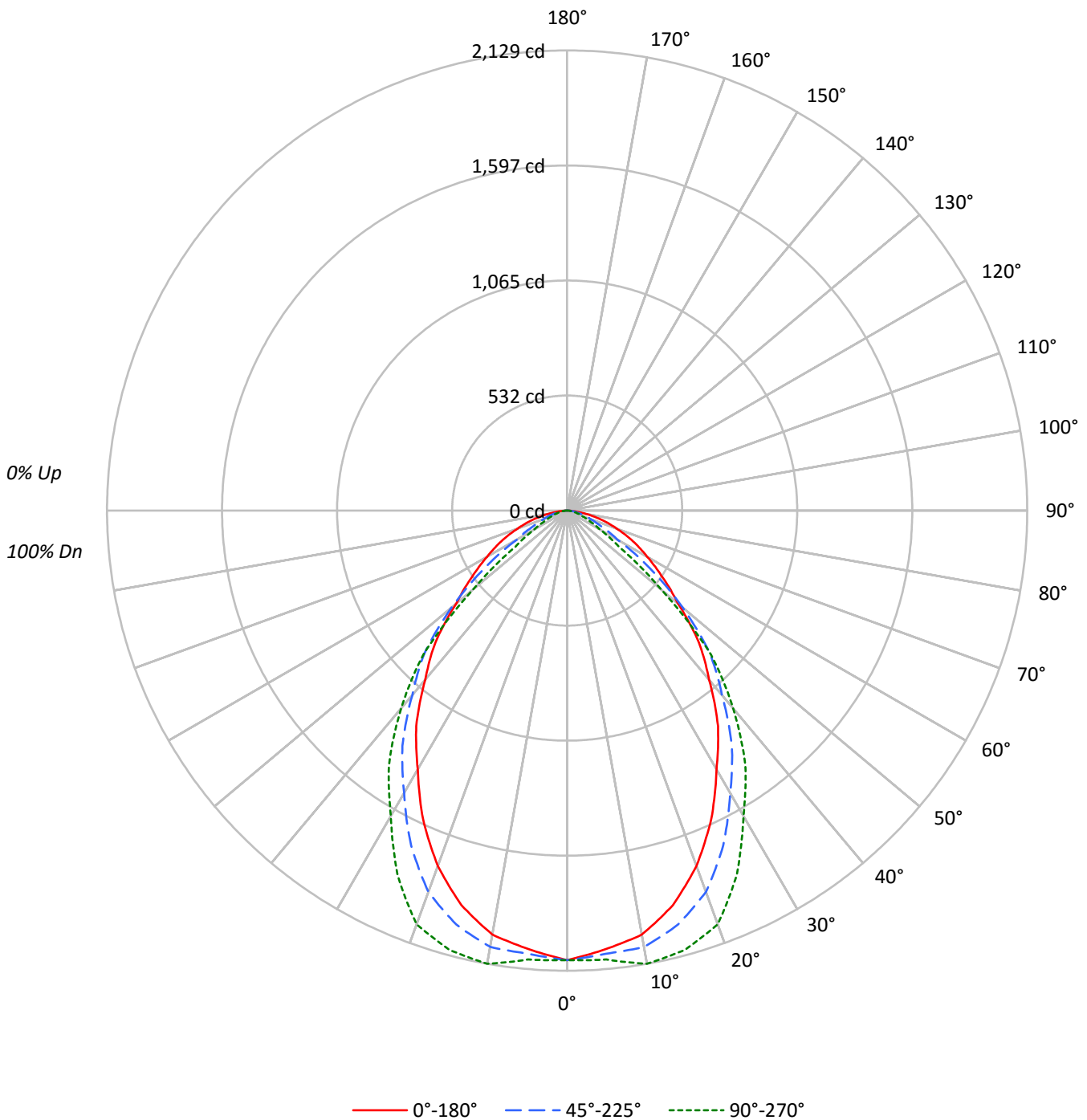
Lumens per Lamp: 2950 (2 lamps)  
Luminaire Lumens: 3806.0 lumens  
Efficiency: 64.5%  
Efficacy: 70.5 lumens/watt  
Spacing Criteria (0/90/45): 1.04 / 1.17 / 1.17  
Luminous Opening: Rectangular (W 0.9' x L: 3.9' x H: 0')  
CIE Type: Direct

Input Watts (W): 54  
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	50	30	10	0	
RCR																						
0	77	77	77	77	75	75	75	75	72	72	72	69	69	69	66	66	66	65				
1	72	69	67	65	70	68	66	64	65	63	62	63	61	60	60	59	58	57				
2	66	62	59	55	65	61	58	55	59	56	54	57	54	52	55	53	51	50				
3	62	56	52	48	60	55	51	48	53	50	47	51	48	46	50	47	45	44				
4	57	51	46	42	56	50	45	42	48	44	41	47	43	41	45	43	40	39				
5	53	46	41	37	52	45	41	37	44	40	37	43	39	36	42	38	36	35				
6	49	42	37	33	48	41	37	33	40	36	33	39	35	33	38	35	32	31				
7	46	38	33	30	45	38	33	30	37	33	30	36	32	29	35	32	29	28				
8	43	35	31	27	42	35	30	27	34	30	27	33	30	27	33	29	27	26				
9	41	33	28	25	40	32	28	25	32	28	25	31	27	25	31	27	24	23				
10	38	31	26	23	38	30	26	23	30	25	23	29	25	23	28	25	22	21				

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

	0°	45°	90°
0°	6414	6414	6414
5°	6305	6370	6454
10°	6237	6419	6666
15°	6033	6330	6717
20°	5739	6159	6684
25°	5365	5814	6321
30°	4921	5373	5807
35°	4581	5003	5413
40°	4114	4488	4814
45°	3759	4073	4103
50°	3209	3344	2710
55°	2898	2521	1575
60°	2639	1665	1092
65°	2459	1277	832
70°	2200	1037	658
75°	1966	894	584
80°	1545	746	462
85°	1168	672	425



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	196.6	5.2	3.3
10°-20°	558.9	14.7	9.5
20°-30°	783.8	20.6	13.3
30°-40°	824.3	21.7	14.0
40°-50°	695.8	18.3	11.8
50°-60°	411.4	10.8	7.0
60°-70°	217.3	5.7	3.7
70°-80°	94.8	2.5	1.6
80°-90°	23.0	0.6	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°	1539.3	40.4	26.1
0°-40°	2363.6	62.1	40.1
0°-60°	3470.8	91.2	58.8
0°-90°	3806.0	100.0	64.5
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°	3806.0	100.0	64.5

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2080	2080	2080	2080	2080	
5°	2037	2043	2058	2074	2085	193
15°	1890	1920	1983	2055	2104	530
25°	1577	1630	1709	1784	1858	723
35°	1217	1282	1329	1370	1438	756
45°	862	927	934	927	941	658
55°	539	553	469	337	293	486
65°	337	326	175	144	114	333
75°	165	98	75	64	49	174
85°	33	22	19	14	12	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2080	2080	2080	2080	2080
5°	2037	2043	2058	2074	2085
10°	1992	2007	2050	2101	2129
15°	1890	1920	1983	2055	2104
20°	1749	1793	1877	1967	2037
25°	1577	1630	1709	1784	1858
30°	1382	1444	1509	1563	1631
35°	1217	1282	1329	1370	1438
40°	1022	1089	1115	1141	1196
45°	862	927	934	927	941
50°	669	711	697	597	565
55°	539	553	469	337	293
60°	428	428	270	207	177
65°	337	326	175	144	114
70°	244	198	115	96	73
75°	165	98	75	64	49
80°	87	52	42	33	26
85°	33	22	19	14	12
90°	0	0	0	0	0

(END OF REPORT)