

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. 13066.0

Luminaire Tested: **194R-2T8-ETG-1-EB-SI-S17**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: BALLABS TEST NO. 13066.0  
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-S17  
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**

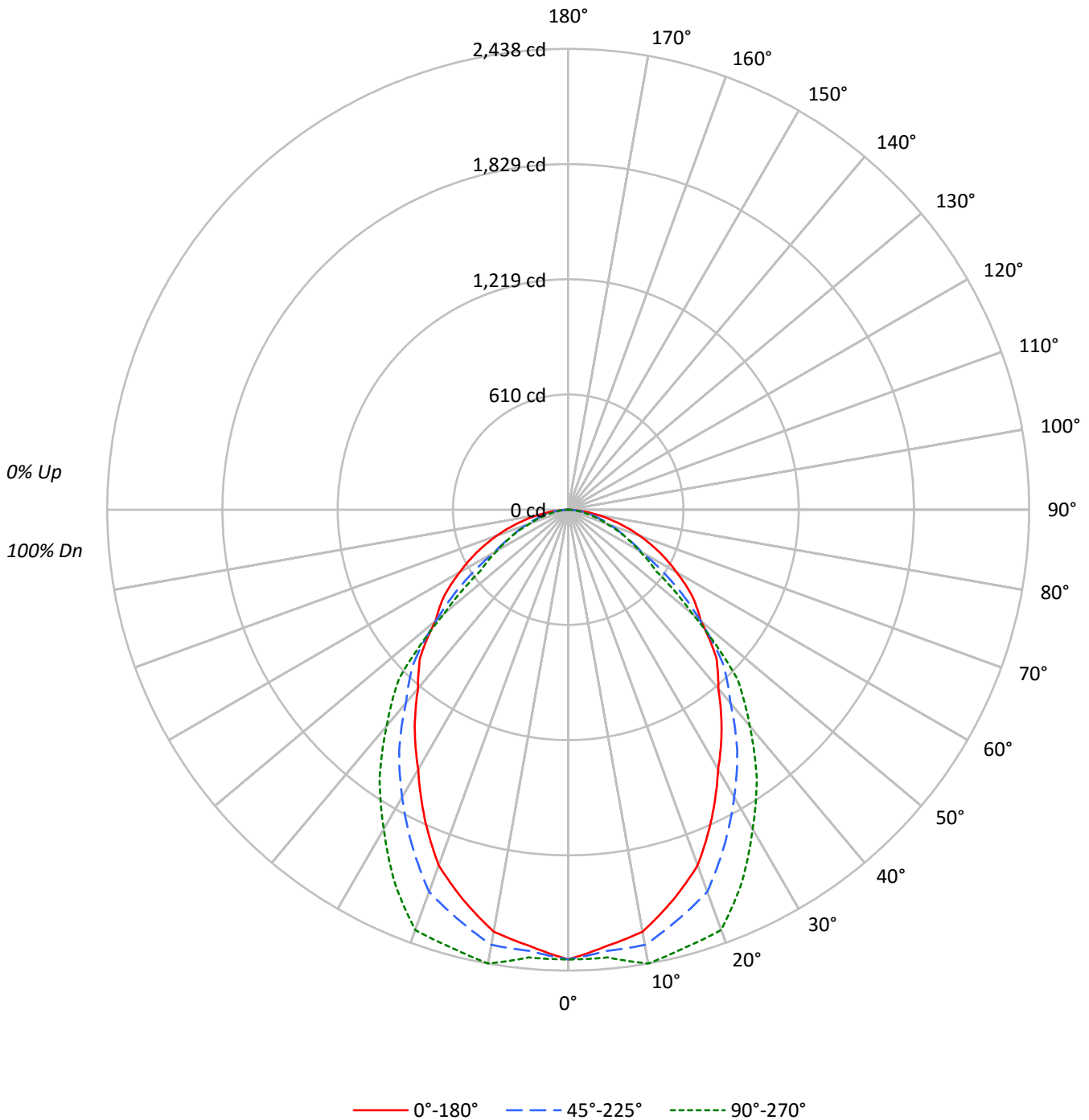
Lumens per Lamp: 2950 (2 lamps)  
Luminaire Lumens: 4880.3 lumens  
Efficiency: 82.7%  
Efficacy: 90.4 lumens/watt  
Spacing Criteria (0/90/45): 1.03 / 1.21 / 1.2  
Luminous Opening: Rectangular (W 0.9' x L: 3.9' x H: 0')  
CIE Type: Direct

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	0
RCR																				
0	98	98	98	98	96	96	96	96	92	92	92		88	88	88		84	84	84	83
1	91	88	85	82	89	86	83	81	83	80	78		79	77	76		76	75	74	72
2	84	78	73	69	82	77	72	68	74	70	67		71	68	65		69	66	64	62
3	77	70	64	59	76	68	63	58	66	61	57		64	60	56		62	58	55	54
4	72	63	56	51	70	62	55	51	60	54	50		58	53	49		56	52	49	47
5	66	57	50	45	65	56	49	45	54	48	44		52	48	44		51	47	43	42
6	62	51	45	40	60	51	44	40	49	44	39		48	43	39		47	42	39	37
7	57	47	40	36	56	46	40	35	45	39	35		44	39	35		43	38	35	33
8	54	43	37	32	52	43	36	32	42	36	32		41	35	32		40	35	32	30
9	50	40	34	29	49	39	33	29	39	33	29		38	33	29		37	32	29	27
10	47	37	31	27	46	37	31	27	36	30	27		35	30	26		34	30	26	25

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

	0°	45°	90°
0°	7336	7336	7336
5°	7175	7252	7361
10°	7098	7320	7634
15°	6828	7167	7652
20°	6569	7058	7764
25°	6117	6655	7397
30°	5647	6252	6947
35°	5326	5868	6546
40°	4975	5374	6014
45°	4832	5067	5521
50°	4394	4370	4121
55°	4322	3650	3064
60°	4083	2781	2683
65°	3882	2393	2379
70°	3606	2146	1956
75°	3264	1918	1644
80°	2806	1669	1296
85°	2017	1344	991



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	224.2	4.6	3.8
10°-20°	637.1	13.1	10.8
20°-30°	904.8	18.5	15.3
30°-40°	974.3	20.0	16.5
40°-50°	887.5	18.2	15.0
50°-60°	621.4	12.7	10.5
60°-70°	390.7	8.0	6.6
70°-80°	191.3	3.9	3.2
80°-90°	48.9	1.0	0.8
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°	1766.1	36.2	29.9
0°-40°	2740.4	56.2	46.4
0°-60°	4249.4	87.1	72.0
0°-90°	4880.3	100.0	82.7
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°	4880.3	100.0	82.7

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2379	2379	2379	2379	2379	
5°	2318	2322	2343	2366	2378	220
15°	2139	2171	2245	2336	2397	603
25°	1798	1858	1956	2071	2174	827
35°	1415	1479	1559	1633	1739	884
45°	1108	1157	1162	1210	1266	843
55°	804	801	679	567	570	713
65°	532	502	328	317	326	526
75°	274	189	161	147	138	292
85°	57	45	38	33	28	74
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2379	2379	2379	2379	2379
5°	2318	2322	2343	2366	2378
10°	2267	2285	2338	2399	2438
15°	2139	2171	2245	2336	2397
20°	2002	2055	2151	2271	2366
25°	1798	1858	1956	2071	2174
30°	1586	1654	1756	1848	1951
35°	1415	1479	1559	1633	1739
40°	1236	1292	1335	1403	1494
45°	1108	1157	1162	1210	1266
50°	916	939	911	851	859
55°	804	801	679	567	570
60°	662	657	451	416	435
65°	532	502	328	317	326
70°	400	326	238	221	217
75°	274	189	161	147	138
80°	158	108	94	84	73
85°	57	45	38	33	28
90°	0	0	0	0	0

(END OF REPORT)