

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. 14772.0

Luminaire Tested: **234ISL-3T5 OUTBOARD LAMPS OFF**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: BALLABS TEST NO. 14772.0
Test Lab: BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: 234ISL-3T5 OUTBOARD LAMPS OFF
Description: 3/28W T5 LAMP 2x4'DIRECT RECESSED LUMINAIRE w/WHITE REFL
PERF DIFFUSER/OVERLAY w/OPEN CENTER 3.6"WHITE BLADE BAFFLE
LUTRON #ECO-T528-277-1 WATTS=34
Light Source: -
FP28T5/835
Ballast/Driver: -

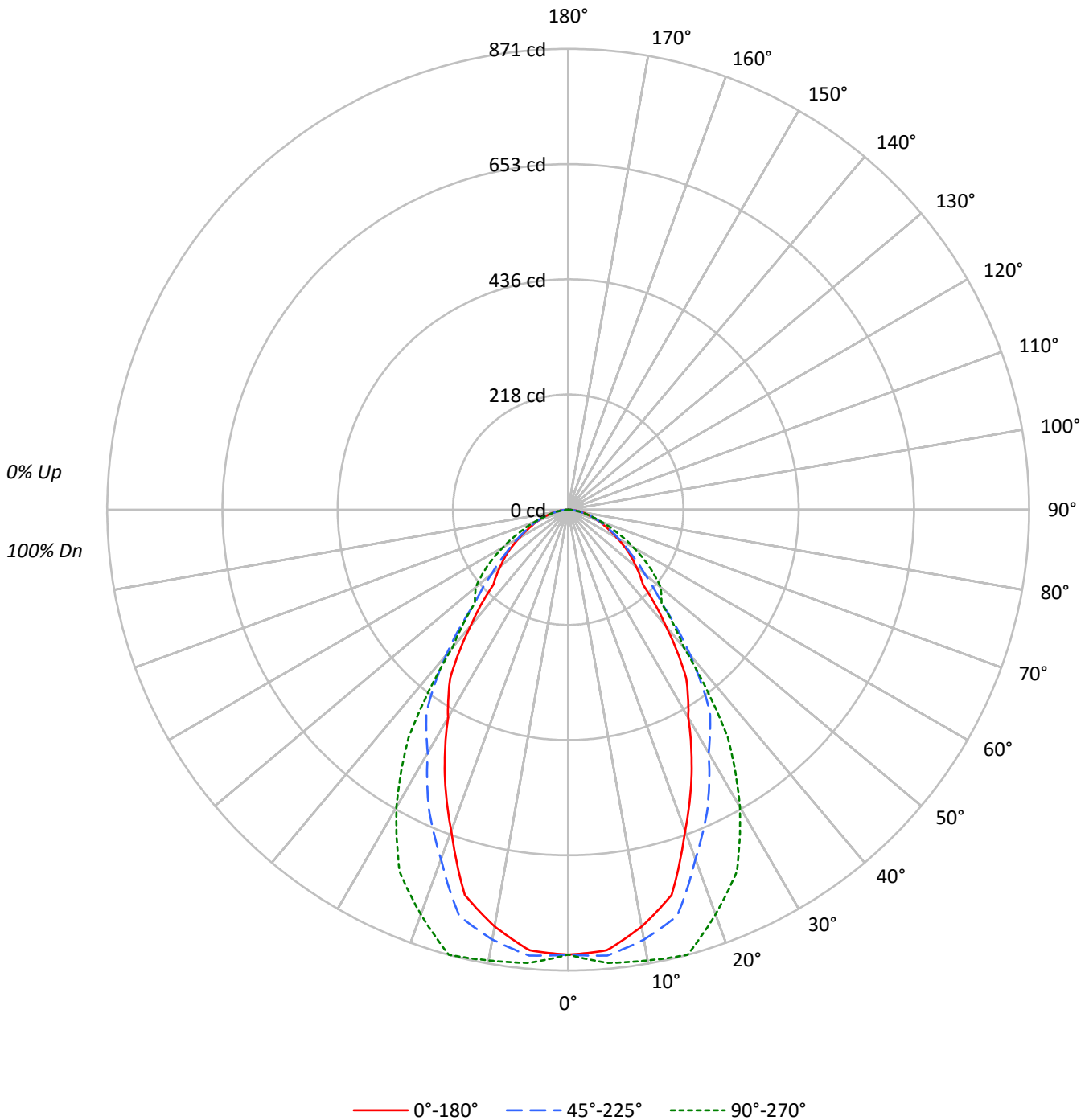
Summary

Lumens per Lamp: 2900 (1 lamp)
Luminaire Lumens: 1342.6 lumens
Efficiency: 46.3%
Efficacy: 39.5 lumens/watt
Spacing Criteria (0/90/45): 0.92 / 1.16 / 1.08
Luminous Opening: Rectangular (W 1.94' x L: 3.92' x H: 0')
CIE Type: Direct

Input Watts (W): 34
Input Voltage (V): NR
Input Current (A_{in}): 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	55	55	55	55	54	54	54	54	51	51	51	49	49	49	47	47	47	46
1	51	50	48	47	50	49	47	46	47	45	44	45	44	43	43	42	42	41
2	48	45	42	40	47	44	41	39	42	40	38	41	39	38	39	38	37	36
3	44	40	37	35	43	39	37	34	38	36	34	37	35	33	36	34	33	32
4	41	36	33	30	40	36	33	30	35	32	30	34	31	29	33	31	29	28
5	38	33	30	27	37	33	29	27	32	29	27	31	28	26	30	28	26	25
6	36	31	27	24	35	30	27	24	29	26	24	29	26	24	28	26	24	23
7	34	28	25	22	33	28	24	22	27	24	22	26	24	22	26	23	22	21
8	32	26	23	20	31	26	22	20	25	22	20	25	22	20	24	22	20	19
9	30	24	21	19	29	24	21	18	23	20	18	23	20	18	23	20	18	18
10	28	23	19	17	28	22	19	17	22	19	17	22	19	17	21	19	17	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1193	1193	1193
5°	1190	1204	1224
10°	1152	1188	1245
15°	1107	1167	1279
20°	975	1061	1228
25°	864	975	1180
30°	743	869	1063
35°	673	808	911
40°	533	665	629
45°	401	499	499
50°	371	417	503
55°	341	356	462
60°	301	315	403
65°	268	278	339
70°	249	257	278
75°	225	219	219
80°	204	196	188
85°	179	163	130



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	80.2	6.0	2.8
10°-20°	222.1	16.5	7.7
20°-30°	290.2	21.6	10.0
30°-40°	280.0	20.9	9.7
40°-50°	189.1	14.1	6.5
50°-60°	137.5	10.2	4.7
60°-70°	87.7	6.5	3.0
70°-80°	44.1	3.3	1.5
80°-90°	11.7	0.9	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°	592.5	44.1	20.4
0°-40°	872.5	65.0	30.1
0°-60°	1199.0	89.3	41.3
0°-90°	1342.6	100.0	46.3
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°	1342.6	100.0	46.3

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	841	841	841	841	841	
5°	836	840	846	855	860	79
15°	754	764	795	840	871	208
25°	552	568	623	698	754	253
35°	389	411	467	512	526	237
45°	200	213	249	230	249	165
55°	138	140	144	168	187	123
65°	80	82	83	92	101	81
75°	41	40	40	40	40	44
85°	11	11	10	8	8	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	841	841	841	841	841
5°	836	840	846	855	860
10°	800	807	825	861	865
15°	754	764	795	840	871
20°	646	661	703	767	814
25°	552	568	623	698	754
30°	454	473	531	597	649
35°	389	411	467	512	526
40°	288	310	359	352	340
45°	200	213	249	230	249
50°	168	173	189	203	228
55°	138	140	144	168	187
60°	106	106	111	128	142
65°	80	82	83	92	101
70°	60	62	62	66	67
75°	41	40	40	40	40
80°	25	24	24	23	23
85°	11	11	10	8	8
90°	0	0	0	0	0

(END OF REPORT)