

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. 14771.0

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

Issue Date: 3/3/2020

**Test Information**

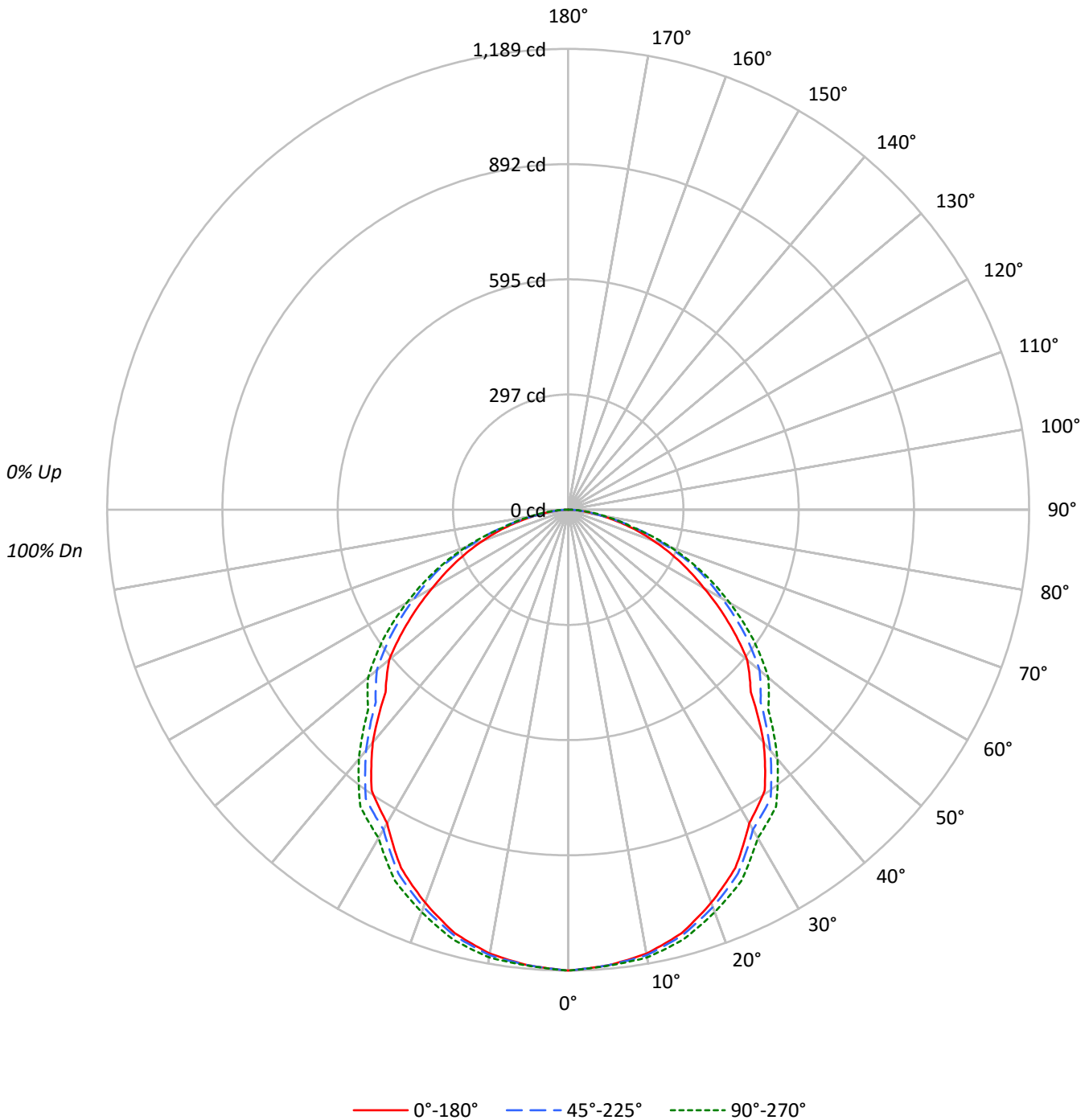
Test Method: LM-41-14  
Report Number: BALLABS TEST NO. 14771.0  
Test Lab: BUILDING ACOUSTICS & LIGHTING LABORATORIE,S INC  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: 234ISL-3T5 CENTER LAMPS OFF  
Description: 3/28W T5 LAMP 2x4'DIRECT RECESSED LUMINAIRE w/WHITE REFL  
PERF DIFFUSER/OVERLAY w/OPEN CENTER 3.6"WHITE BLADE BAFFLE  
LUTRON #ECO-T528-277-2 WATTS=62  
Light Source: -  
FP28T5/835  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 2900 (2 lamps)  
Luminaire Lumens: 3093.0 lumens  
Efficiency: 53.3%  
Efficacy: 49.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.23 / 1.31  
Luminous Opening: Rectangular (W 1.94' x L: 3.92' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 62  
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	63	63	63	63	62	62	62	62	59	59	59		57	57	57		54	54	54	53
1	58	56	54	52	57	55	53	51	52	51	49		50	49	48		48	47	46	45
2	53	49	45	42	52	48	45	42	46	43	41		44	42	40		43	41	39	38
3	49	43	39	35	47	42	38	35	41	37	34		39	36	34		38	35	33	32
4	44	38	34	30	43	38	33	30	36	32	30		35	32	29		34	31	29	28
5	41	34	30	26	40	34	29	26	33	29	26		31	28	25		30	27	25	24
6	38	31	26	23	37	30	26	23	29	25	23		29	25	22		28	25	22	21
7	35	28	23	20	34	28	23	20	27	23	20		26	22	20		25	22	20	19
8	33	26	21	18	32	25	21	18	25	21	18		24	20	18		23	20	18	17
9	31	24	19	16	30	23	19	16	23	19	16		22	19	16		22	18	16	15
10	29	22	18	15	28	21	17	15	21	17	15		20	17	15		20	17	15	14

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

	0°	45°	90°
0°	1686	1686	1686
5°	1680	1680	1681
10°	1675	1680	1689
15°	1660	1669	1685
20°	1628	1646	1667
25°	1596	1621	1654
30°	1529	1560	1601
35°	1530	1575	1618
40°	1451	1501	1555
45°	1336	1408	1464
50°	1330	1421	1487
55°	1243	1370	1439
60°	1146	1299	1364
65°	1067	1245	1285
70°	970	1115	1165
75°	849	964	926
80°	670	670	784
85°	488	553	618



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	112.3	3.6	1.9
10°-20°	320.4	10.4	5.5
20°-30°	475.3	15.4	8.2
30°-40°	561.7	18.2	9.7
40°-50°	551.1	17.8	9.5
50°-60°	490.2	15.8	8.5
60°-70°	356.5	11.5	6.1
70°-80°	182.6	5.9	3.1
80°-90°	42.9	1.4	0.7
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°	908.0	29.4	15.7
0°-40°	1469.6	47.5	25.3
0°-60°	2510.9	81.2	43.3
0°-90°	3093.0	100.0	53.3
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°	3093.0	100.0	53.3

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1189	1189	1189	1189	1189	
5°	1180	1179	1180	1180	1181	112
15°	1131	1131	1137	1143	1148	318
25°	1020	1025	1036	1050	1057	467
35°	884	893	910	926	935	546
45°	666	677	702	723	730	525
55°	503	525	554	574	582	450
65°	318	346	371	379	383	315
75°	155	175	176	162	169	165
85°	30	30	34	37	38	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	<i>1189</i>	<i>1189</i>	<i>1189</i>	<i>1189</i>	<i>1189</i>
5°	<i>1180</i>	1179	1180	1180	1181
10°	<i>1163</i>	1164	1167	1170	1173
15°	<i>1131</i>	1131	1137	1143	1148
20°	<i>1079</i>	1081	1091	1101	1105
25°	<i>1020</i>	1025	1036	1050	1057
30°	<i>934</i>	939	953	968	978
35°	<i>884</i>	893	910	926	935
40°	<i>784</i>	793	811	832	840
45°	<i>666</i>	677	702	723	730
50°	<i>603</i>	619	644	665	674
55°	<i>503</i>	525	554	574	582
60°	<i>404</i>	432	458	476	481
65°	<i>318</i>	346	371	379	383
70°	<i>234</i>	255	269	278	281
75°	<i>155</i>	175	176	162	169
80°	<i>82</i>	98	82	92	96
85°	<i>30</i>	30	34	37	38
90°	<i>0</i>	0	0	0	0

(END OF REPORT)