

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: 15719

Luminaire Tested: **701IP-S-P-1-T5**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 15719
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: 701IP-S-P-1-T5
Description: NEORAY 1 LAMP T5 DIRECT/INDIRECT LUMINAIRE - NIMBUS II PERF
WITH WHITE INTERIOR, SPECULAR REFLECTORS AND WHITE LENS OVER PERFORATIONS
Light Source: ONE SYLVANIA 54 WATT T5 LAMP

FP54/841/HO. LUMEN RATING = 4500 LMS.

Ballast/Driver: ONE SYLVANIA QT1X54/120PHO BALLAST OPERATING AT 120 VAC AND 58 WATTS

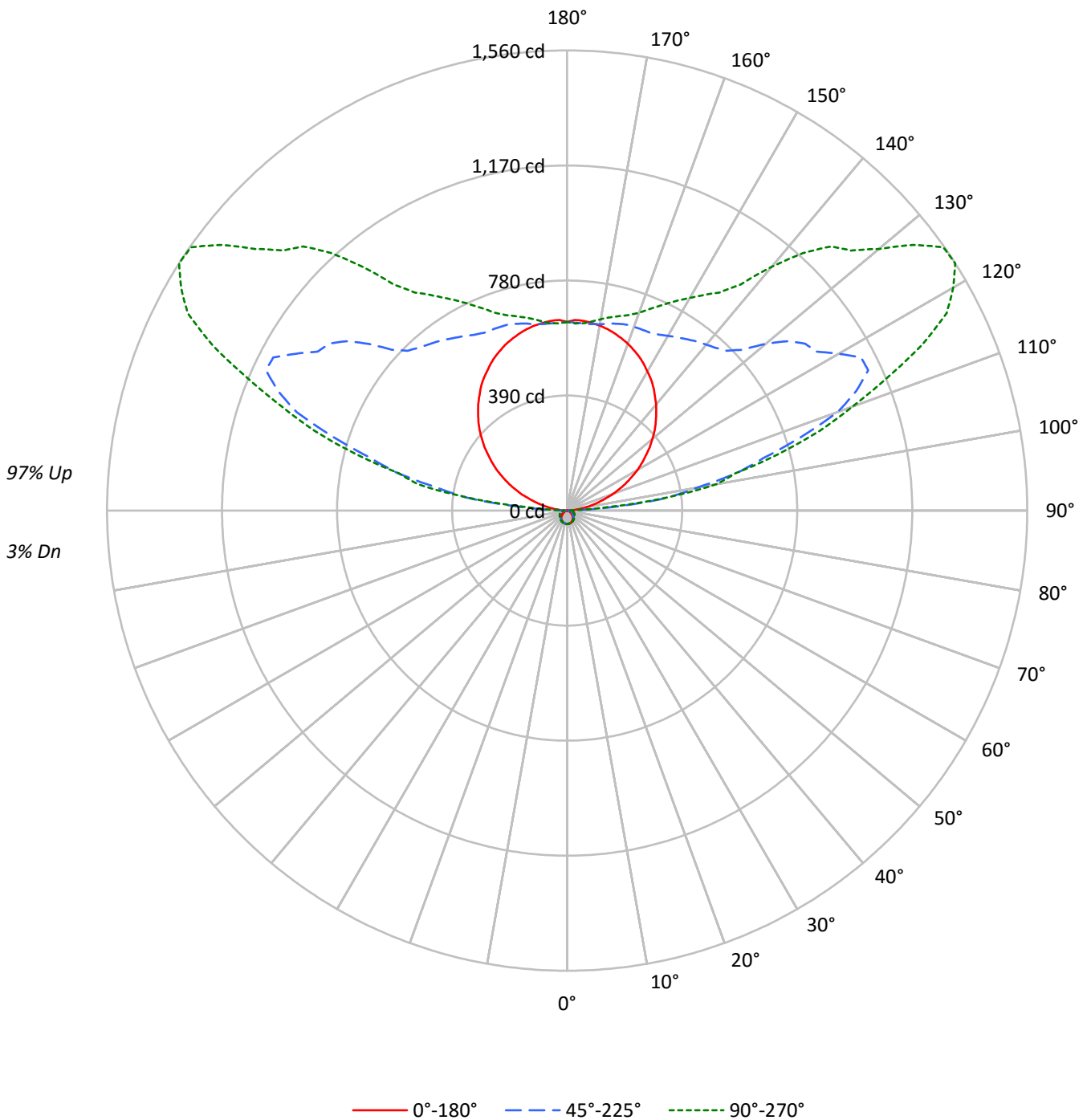
Summary

Lumens per Lamp: 4500 (1 lamp)
Luminaire Lumens: 4318.0 lumens
Efficiency: 96.0%
Efficacy: 74.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 0.75' x L: 4' x H: 0.25')
CIE Type: Indirect

Input Watts (W): 58
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	92	92	92	92	79	79	79	79	55	55	55	33	33	33	13	13	13	3
1	84	80	76	73	72	69	66	63	48	46	45	29	28	27	11	11	11	3
2	76	70	64	60	65	60	56	52	42	39	37	25	24	22	10	9	9	2
3	69	61	55	49	59	53	47	43	37	33	31	22	20	19	9	8	7	2
4	63	54	47	41	54	46	41	36	32	29	26	20	18	16	8	7	6	1
5	58	48	40	35	49	41	35	31	29	25	22	17	15	14	7	6	5	1
6	53	42	35	30	45	37	31	26	26	22	19	16	13	12	6	5	5	1
7	49	38	31	26	42	33	27	23	23	19	16	14	12	10	5	5	4	1
8	45	34	27	23	39	30	24	20	21	17	14	13	10	9	5	4	4	1
9	42	31	24	20	36	27	21	17	19	15	13	11	9	8	5	4	3	1
10	39	28	22	17	33	24	19	15	17	14	11	10	8	7	4	3	3	1

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	162	162	162
5°	159	157	157
10°	164	154	152
15°	160	152	148
20°	156	146	144
25°	155	144	144
30°	148	139	138
35°	143	132	135
40°	140	127	130
45°	124	118	129
50°	118	116	123
55°	109	116	131
60°	91	110	133
65°	76	108	136
70°	64	107	133
75°	54	111	136
80°	37	93	127
85°	12	88	128



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	4.3	0.1	0.1
10°-20°	12.2	0.3	0.3
20°-30°	18.6	0.4	0.4
30°-40°	22.4	0.5	0.5
40°-50°	23.3	0.5	0.5
50°-60°	22.2	0.5	0.5
60°-70°	19.3	0.4	0.4
70°-80°	15.1	0.4	0.3
80°-90°	9.0	0.2	0.2
90°-100°	184.2	4.3	4.1
100°-110°	618.8	14.3	13.8
110°-120°	891.2	20.6	19.8
120°-130°	843.8	19.5	18.8
130°-140°	629.7	14.6	14.0
140°-150°	446.9	10.3	9.9
150°-160°	311.2	7.2	6.9
160°-170°	184.6	4.3	4.1
170°-180°	61.1	1.4	1.4
0°-30°	35.1	0.8	0.8
0°-40°	57.5	1.3	1.3
0°-60°	103.0	2.4	2.3
0°-90°	146.4	3.4	3.3
90°-120°	1694.2	39.2	37.6
90°-150°	3614.6	83.7	80.3
90°-180°	4172.0	96.6	92.7
0°-180°	4318.0	100.0	96.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	45	45	45	45	45	
5°	44	45	45	45	45	4
15°	44	43	44	43	43	12
25°	40	40	41	42	42	18
35°	34	35	36	37	38	21
45°	26	27	30	32	34	20
55°	19	21	26	29	31	16
65°	10	14	20	26	27	10
75°	5	8	16	21	22	4
85°	0	3	9	14	15	1
90°	0	2	5	8	9	1
95°	24	164	195	157	155	28
105°	112	519	690	734	742	119
115°	220	474	1126	1308	1327	218
125°	326	477	986	1425	1556	292
135°	425	519	766	1120	1267	328
145°	510	570	709	837	903	319
155°	576	607	665	737	770	265
165°	622	625	656	671	682	176
175°	646	640	637	637	637	61
180°	640	640	640	640	640	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	45.2	45.2	45.2	45.2	45.2
2.5°	46.2	45.0	44.3	45.1	45.4
5°	44.3	45.4	44.7	45.1	45.0
7.5°	44.6	45.0	44.3	44.7	45.0
10°	45.4	44.3	44.3	43.5	44.3
12.5°	43.8	44.3	43.4	43.5	44.6
15°	43.8	43.1	43.9	42.7	43.4
17.5°	43.5	41.9	43.1	42.7	43.1
20°	41.9	41.6	42.2	41.9	42.3
22.5°	40.7	40.3	40.7	40.7	42.3
25°	40.4	39.6	41.2	41.6	41.9
27.5°	38.0	38.0	40.0	39.6	41.2
30°	36.9	37.5	39.1	38.8	39.6
32.5°	35.3	36.0	37.6	37.5	39.3
35°	34.0	34.6	36.0	36.9	38.0
37.5°	33.3	32.5	34.1	35.3	37.2
40°	31.4	31.4	33.4	34.9	35.6
42.5°	28.7	29.0	32.5	33.3	35.7
45°	25.9	27.4	29.7	32.5	34.0
47.5°	24.3	25.5	29.0	31.8	33.4
50°	22.7	24.0	27.8	30.6	30.9
52.5°	19.6	22.7	25.9	29.7	31.4
55°	18.9	20.8	25.9	28.7	30.9
57.5°	16.5	18.9	23.1	28.1	30.2
60°	14.1	17.3	22.8	27.4	29.3
62.5°	12.1	15.7	21.5	25.5	28.3
65°	10.2	13.7	20.4	25.5	27.4
67.5°	9.5	11.8	18.1	24.3	26.2
70°	7.1	10.6	18.0	23.5	24.3
72.5°	6.3	9.0	16.9	22.0	23.9
75°	4.8	8.3	16.4	21.1	22.0
77.5°	0.5	7.5	13.7	18.9	21.2
80°	2.4	5.8	11.7	16.9	17.7
82.5°	0.8	4.3	11.0	15.3	16.1
85°	0.5	3.2	9.0	13.7	14.9
87.5°	0.5	1.7	7.1	11.8	12.6
90°	0.5	1.6	4.9	8.0	8.8
92.5°	8.6	59.5	40.0	26.7	15.7
95°	24.3	164.3	195.1	157.3	155.3
97.5°	41.9	260.9	348.4	339.1	345.7
100°	65.0	389.2	447.4	499.8	514.7
102.5°	87.6	434.1	589.0	566.3	583.8
105°	111.5	519.3	689.5	734.1	741.5
107.5°	136.9	511.9	832.2	869.8	897.1
110°	165.9	504.9	975.2	1008.9	1028.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	192.5	494.3	1061.3	1166.9	1172.7
115°	220.2	473.6	1126.2	1308.4	1326.9
117.5°	246.8	455.7	1123.5	1387.8	1450.7
120°	275.0	460.3	1063.2	1464.0	1511.3
122.5°	300.8	472.0	1002.7	1454.2	1559.8
125°	326.2	476.7	985.9	1425.0	1556.4
127.5°	352.5	489.2	943.2	1307.3	1479.3
130°	377.0	498.3	879.1	1240.8	1379.9
132.5°	402.1	508.4	806.8	1200.9	1304.6
135°	425.0	519.0	766.1	1120.3	1266.6
137.5°	446.9	529.6	747.3	1029.7	1183.3
140°	469.3	541.6	734.4	934.2	1079.3
142.5°	489.2	554.5	722.2	877.1	966.4
145°	510.0	569.8	708.7	837.2	902.6
147.5°	528.3	575.7	696.1	824.3	867.0
150°	544.4	590.9	683.9	789.2	832.5
152.5°	561.3	599.5	673.0	762.9	801.3
155°	576.4	606.9	665.1	737.1	770.0
157.5°	589.3	612.4	664.1	711.8	740.7
160°	601.9	617.5	662.5	693.0	713.4
162.5°	612.4	620.7	661.6	679.6	694.9
165°	621.8	625.0	655.7	671.0	682.4
167.5°	630.3	630.4	649.5	655.0	671.1
170°	636.9	632.8	641.3	650.7	658.9
172.5°	641.3	637.8	637.5	644.8	646.4
175°	645.6	640.1	637.1	636.6	637.1
177.5°	646.8	642.1	637.5	633.9	635.0
180°	639.6	639.6	639.6	639.6	639.6

(END OF REPORT)