

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: 15715

Luminaire Tested: **701IP-S-P-3-T8**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 15715
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: 701IP-S-P-3-T8
Description: NEORAY 3 LAMP T8 DIRECT/INDIRECT LUMINAIRE - NIMBUS II PERF
WITH WHITE INTERIOR, SPECULAR REFLECTORS AND WHITE LENS OVER PERFORATIONS
Light Source: THREE PHILIPS 32 WATT T8 LAMPS

F32T8/TL841. LUMEN RATING = 2950 LMS.

Ballast/Driver: ONE MAGNETEK B332IUNV HP--B BALLAST OPERATING AT 120 VAC AND 90 WATTS

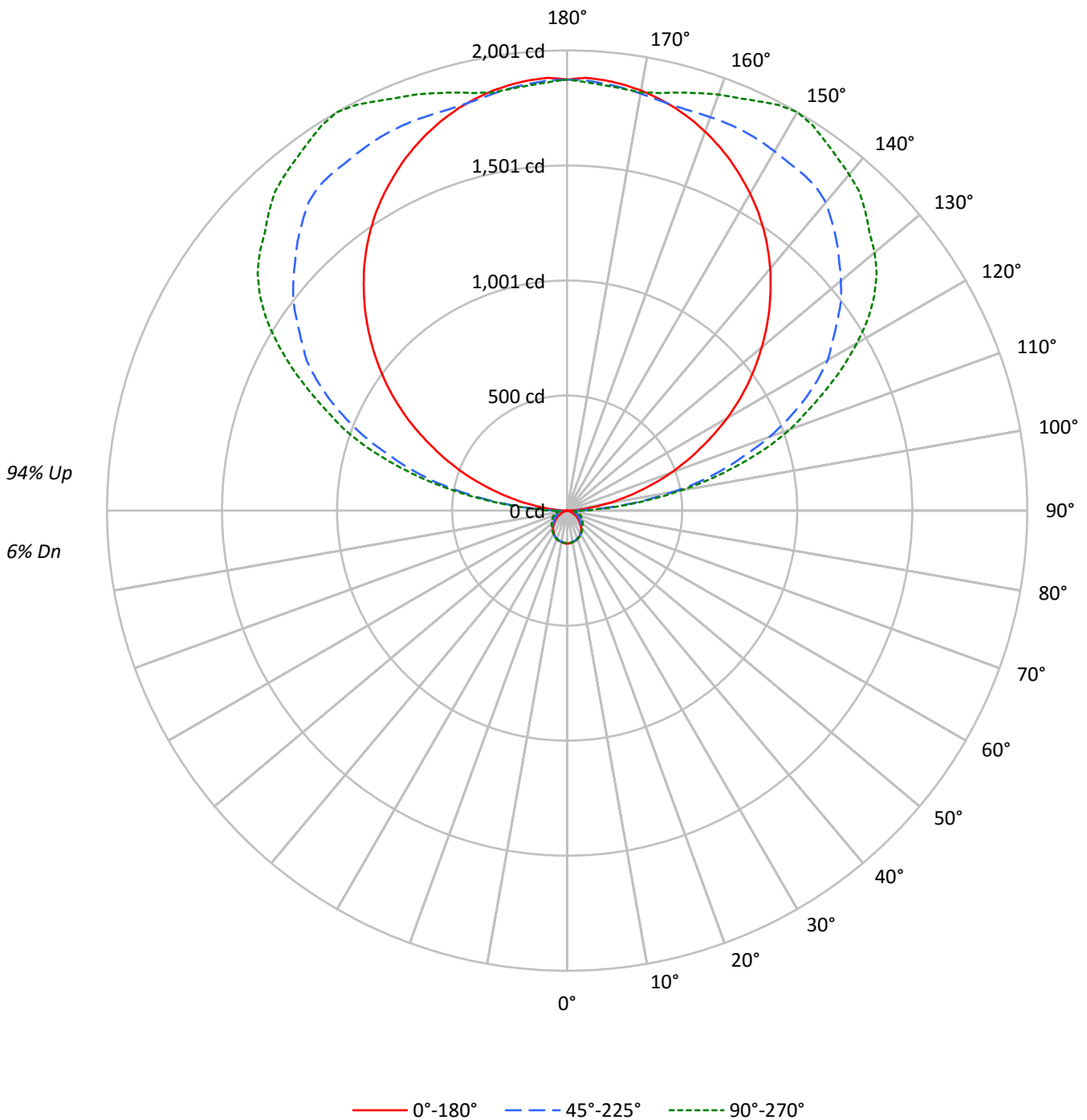
Summary

Lumens per Lamp: 2950 (3 lamps)
Luminaire Lumens: 7447.6 lumens
Efficiency: 84.2%
Efficacy: 82.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.24 / 1.32
Luminous Opening: Rectangular w/ Sides (W: 0.75' x L: 4' x H: 0.25')
CIE Type: Indirect

Input Watts (W): 90
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	81	81	81	81	70	70	70	70	49	49	49	30	30	30	13	13	13	5
1	74	70	67	65	64	61	58	56	43	41	40	26	26	25	11	11	11	4
2	67	61	57	53	58	53	49	46	37	35	33	23	22	21	10	9	9	3
3	61	54	48	44	52	47	42	38	33	30	28	20	19	17	9	8	7	3
4	56	47	41	37	48	41	36	32	29	26	23	18	16	15	8	7	6	2
5	51	42	36	31	44	36	31	27	26	22	20	16	14	13	7	6	5	2
6	47	37	31	27	40	32	27	23	23	20	17	14	12	11	6	5	5	2
7	43	33	27	23	37	29	24	20	21	17	15	13	11	9	6	5	4	1
8	40	30	24	20	34	26	21	18	19	15	13	12	10	8	5	4	4	1
9	37	27	21	18	32	24	19	15	17	14	11	11	9	7	5	4	3	1
10	34	25	19	15	29	22	17	14	15	12	10	10	8	6	4	3	3	1

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	511	511	511
5°	506	493	491
10°	499	476	478
15°	499	467	466
20°	490	450	449
25°	480	437	434
30°	460	417	414
35°	444	392	395
40°	419	371	381
45°	386	349	360
50°	355	325	348
55°	319	309	347
60°	266	287	337
65°	216	270	334
70°	169	266	333
75°	133	253	320
80°	72	219	307
85°	24	180	270



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	13.4	0.2	0.2
10°-20°	38.2	0.5	0.4
20°-30°	57.1	0.8	0.6
30°-40°	67.3	0.9	0.8
40°-50°	67.6	0.9	0.8
50°-60°	60.9	0.8	0.7
60°-70°	49.7	0.7	0.6
70°-80°	36.0	0.5	0.4
80°-90°	23.3	0.3	0.3
90°-100°	222.7	3.0	2.5
100°-110°	681.3	9.1	7.7
110°-120°	1040.8	14.0	11.8
120°-130°	1228.9	16.5	13.9
130°-140°	1230.8	16.5	13.9
140°-150°	1094.6	14.7	12.4
150°-160°	838.1	11.3	9.5
160°-170°	519.7	7.0	5.9
170°-180°	177.3	2.4	2.0
0°-30°	108.7	1.5	1.2
0°-40°	176.0	2.4	2.0
0°-60°	304.5	4.1	3.4
0°-90°	413.4	5.6	4.7
90°-120°	1944.7	26.1	22.0
90°-150°	5499.1	73.8	62.1
90°-180°	7034.0	94.4	79.5
0°-180°	7447.6	100.0	84.2

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	142	142	142	142	142	
5°	141	141	140	140	140	13
15°	137	135	135	135	137	38
25°	125	122	125	124	127	57
35°	106	105	107	110	111	66
45°	81	82	88	92	95	62
55°	56	58	69	76	82	49
65°	29	38	51	62	67	29
75°	12	19	37	48	52	13
85°	1	8	18	28	32	2
90°	0	13	40	46	71	3
95°	64	170	211	225	234	76
105°	322	583	711	763	777	343
115°	638	915	1137	1222	1240	633
125°	959	1182	1434	1566	1631	856
135°	1244	1397	1657	1790	1834	959
145°	1490	1570	1787	1927	1959	932
155°	1680	1688	1819	1919	1964	774
165°	1813	1806	1820	1861	1882	511
175°	1879	1872	1864	1854	1856	179
180°	1874	1874	1874	1874	1874	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	142.4	142.4	142.4	142.4	142.4
2.5°	144.2	141.3	142.2	140.8	140.4
5°	141.3	140.8	140.3	140.3	140.4
7.5°	141.9	140.3	139.4	139.8	140.3
10°	138.5	139.8	137.1	138.0	138.9
12.5°	137.1	137.1	137.1	137.5	138.5
15°	136.6	135.2	135.2	134.8	136.6
17.5°	133.8	132.9	132.3	133.4	134.8
20°	131.3	128.6	130.0	130.0	132.0
22.5°	128.1	126.3	127.2	127.6	129.1
25°	124.8	122.4	124.8	124.2	126.7
27.5°	120.1	118.7	121.0	120.1	123.0
30°	115.0	114.0	116.8	117.8	119.1
32.5°	110.8	109.2	112.2	113.5	115.0
35°	105.9	105.0	106.9	110.2	111.1
37.5°	99.8	100.3	103.0	105.1	106.9
40°	94.2	95.1	97.9	101.8	104.1
42.5°	87.6	88.0	91.7	96.5	98.9
45°	80.9	82.4	88.0	92.2	94.6
47.5°	74.4	76.7	82.0	87.6	91.4
50°	68.3	70.3	77.6	84.8	87.1
52.5°	61.3	65.0	72.6	81.1	85.2
55°	55.6	58.5	69.2	76.3	81.8
57.5°	48.0	52.3	64.1	73.5	77.2
60°	41.1	46.6	59.4	69.2	74.0
62.5°	33.5	41.5	55.6	66.9	71.6
65°	28.8	38.2	50.9	62.2	67.4
67.5°	23.1	32.5	48.6	60.3	65.5
70°	18.9	27.9	44.8	56.1	60.9
72.5°	15.5	23.1	41.5	51.9	56.7
75°	11.8	18.9	37.3	48.0	51.8
77.5°	8.5	16.0	32.5	43.4	48.0
80°	4.7	14.1	27.4	38.3	42.9
82.5°	2.3	10.9	23.1	33.0	35.8
85°	1.0	7.6	18.4	28.4	31.6
87.5°	0.5	4.7	18.4	26.3	31.2
90°	0.5	12.6	40.2	46.4	71.3
92.5°	20.8	72.1	104.5	114.0	124.4
95°	63.6	170.0	211.4	225.0	234.0
97.5°	116.3	278.2	340.4	355.9	363.9
100°	178.5	409.1	469.3	528.1	499.5
102.5°	247.6	458.1	597.4	592.6	641.6
105°	322.0	583.3	711.4	762.6	777.2
107.5°	400.1	672.2	819.4	887.4	910.4
110°	482.0	754.5	936.8	999.3	1030.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	560.2	836.4	1039.8	1110.4	1131.0
115°	638.4	915.0	1137.2	1221.9	1240.4
117.5°	719.3	988.5	1227.6	1329.3	1351.9
120°	802.6	1063.8	1308.1	1427.2	1455.0
122.5°	881.8	1152.8	1368.4	1532.6	1550.6
125°	959.4	1182.4	1433.8	1566.5	1630.9
127.5°	1032.7	1250.3	1502.0	1642.9	1696.5
130°	1104.7	1297.3	1553.8	1691.8	1745.4
132.5°	1174.9	1346.8	1604.6	1742.6	1784.5
135°	1244.1	1397.0	1657.4	1789.7	1834.5
137.5°	1309.5	1439.5	1704.0	1824.6	1880.5
140°	1374.0	1485.6	1749.7	1857.5	1908.2
142.5°	1433.3	1524.1	1776.0	1888.0	1931.9
145°	1490.3	1569.9	1787.3	1926.6	1958.6
147.5°	1543.5	1585.8	1793.5	1936.0	1986.5
150°	1592.0	1625.4	1803.9	1948.3	2000.6
152.5°	1636.2	1656.4	1813.6	1934.6	1988.3
155°	1680.0	1688.5	1819.3	1919.0	1964.2
157.5°	1718.6	1721.4	1821.6	1907.7	1941.6
160°	1753.9	1752.1	1820.7	1892.3	1925.2
162.5°	1785.4	1779.7	1818.9	1876.7	1903.1
165°	1813.1	1805.7	1820.2	1861.2	1881.9
167.5°	1835.4	1832.0	1828.3	1845.3	1859.9
170°	1854.6	1841.4	1841.4	1843.8	1846.2
172.5°	1868.3	1861.2	1854.1	1846.7	1850.4
175°	1878.7	1872.0	1863.5	1854.3	1856.1
177.5°	1883.8	1879.4	1871.6	1862.2	1864.5
180°	1874.2	1874.2	1874.2	1874.2	1874.2

(END OF REPORT)