

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: 15659

Luminaire Tested: **242/3BX**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 15659
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: 242/3BX
Description: NEORAY 3 LAMP 2 X 2 TROFFER LUMINAIRE
WITH WHITE INTERIOR AND WHITE LENS OVER PERFORATIONS
Light Source: THREE GE 40 WATT CPFL LAMPS

F40/30BX/SPX35. LUMEN RATING = 9450 LMS.

Ballast/Driver: ONE MAGNETEK C340I120RH BALLAST OPERATING AT 120 VAC AND 92 WATTS

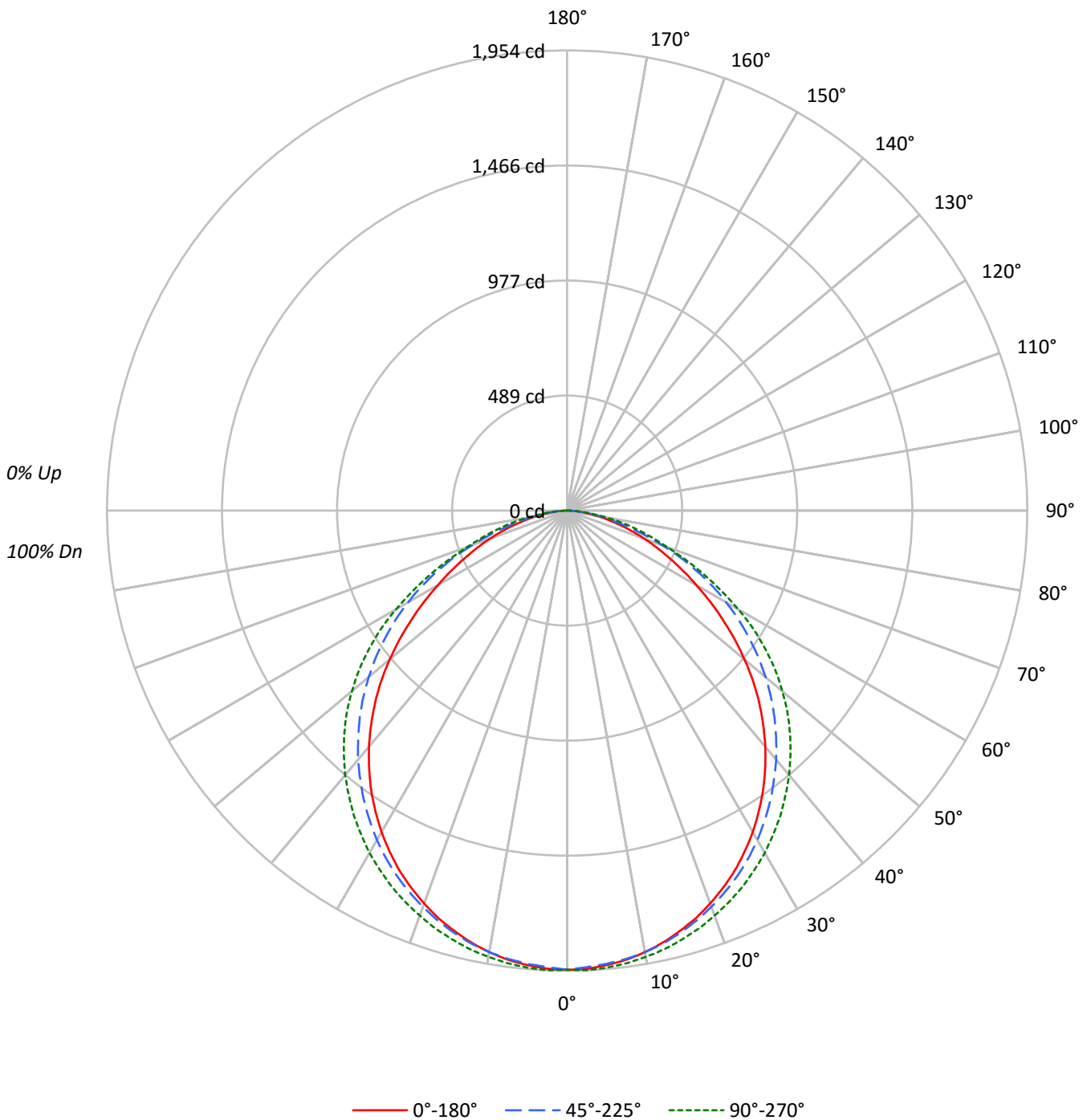
Summary

Lumens per Lamp: 9450 (1 lamp)
Luminaire Lumens: 5167.8 lumens
Efficiency: 54.7%
Efficacy: 56.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.35
Luminous Opening: Rectangular (W 1.94' x L: 1.94' x H: 0')
CIE Type: Direct

Input Watts (W): 92
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	65	65	65	65	64	64	64	64	61	61	61	58	58	58	56	56	56	55
1	60	57	55	53	58	56	54	52	54	52	51	52	50	49	50	49	48	46
2	55	50	47	44	53	49	46	43	47	44	42	45	43	41	44	42	40	39
3	50	44	40	36	48	43	39	36	42	38	35	40	37	35	39	36	34	33
4	46	39	35	31	44	39	34	31	37	33	30	36	33	30	35	32	30	28
5	42	35	30	27	41	35	30	27	33	29	26	32	29	26	31	28	26	25
6	39	32	27	23	38	31	27	23	30	26	23	29	26	23	28	25	23	22
7	36	29	24	21	35	28	24	21	27	23	20	27	23	20	26	23	20	19
8	34	26	22	18	33	26	21	18	25	21	18	24	21	18	24	21	18	17
9	31	24	20	17	31	24	20	17	23	19	17	23	19	16	22	19	16	15
10	29	22	18	15	29	22	18	15	21	18	15	21	17	15	20	17	15	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5576	5576	5576
5°	5563	5545	5592
10°	5529	5529	5589
15°	5473	5495	5582
20°	5404	5450	5571
25°	5320	5401	5562
30°	5207	5334	5542
35°	5066	5252	5515
40°	4888	5156	5475
45°	4664	5038	5413
50°	4372	4893	5307
55°	4019	4702	5129
60°	3626	4467	4804
65°	3263	4119	4322
70°	2918	3591	3760
75°	2516	2939	3381
80°	2052	2419	2811
85°	1624	1880	2084



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	184.1	3.6	1.9
10°-20°	525.2	10.2	5.6
20°-30°	790.9	15.3	8.4
30°-40°	942.9	18.2	10.0
40°-50°	958.9	18.6	10.1
50°-60°	830.7	16.1	8.8
60°-70°	578.5	11.2	6.1
70°-80°	288.3	5.6	3.1
80°-90°	68.5	1.3	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°	1500.1	29.0	15.9
0°-40°	2443.0	47.3	25.9
0°-60°	4232.6	81.9	44.8
0°-90°	5167.8	100.0	54.7
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°	5167.8	100.0	54.7

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1950	1950	1950	1950	1950	
5°	1938	1935	1932	1940	1948	184
15°	1848	1851	1856	1871	1885	521
25°	1686	1694	1711	1741	1762	776
35°	1451	1468	1504	1548	1580	906
45°	1153	1182	1246	1304	1338	888
55°	806	858	943	1001	1029	721
65°	482	534	609	628	639	481
75°	228	255	266	290	306	243
85°	50	51	57	62	64	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1949.7	1949.7	1949.7	1949.7	1949.7
2.5°	1947.2	1945.4	1940.3	1946.9	1953.6
5°	1937.6	1935.3	1931.5	1940.3	1947.9
7.5°	1923.9	1922.5	1919.7	1929.1	1938.4
10°	1903.7	1903.5	1904.0	1912.7	1924.6
12.5°	1879.0	1880.4	1883.5	1894.0	1907.8
15°	1848.4	1851.2	1856.0	1870.9	1885.2
17.5°	1815.3	1818.8	1825.5	1844.7	1860.9
20°	1775.6	1780.3	1790.6	1813.2	1830.3
22.5°	1732.3	1738.9	1753.0	1779.1	1798.2
25°	1685.8	1693.6	1711.4	1741.0	1762.5
27.5°	1632.7	1642.0	1665.3	1696.7	1721.1
30°	1576.6	1588.9	1615.2	1651.1	1678.2
32.5°	1514.8	1527.9	1560.4	1600.7	1629.2
35°	1451.1	1467.8	1504.2	1547.9	1579.7
37.5°	1381.5	1399.3	1442.6	1491.3	1523.0
40°	1309.2	1331.8	1381.0	1432.2	1466.4
42.5°	1231.9	1256.9	1313.3	1369.6	1403.4
45°	1153.1	1182.5	1245.5	1303.5	1338.3
47.5°	1071.1	1105.6	1174.7	1235.6	1269.1
50°	982.7	1023.5	1099.6	1160.6	1192.8
52.5°	896.1	941.0	1023.1	1085.1	1115.0
55°	806.0	857.7	943.0	1001.4	1028.6
57.5°	719.3	775.1	864.9	918.3	940.3
60°	634.0	692.6	780.9	824.4	839.8
62.5°	557.2	613.1	697.0	729.8	738.8
65°	482.1	533.9	608.7	627.5	638.7
67.5°	413.9	460.9	519.6	536.3	542.2
70°	348.9	389.9	429.4	440.7	449.6
72.5°	285.0	319.8	345.2	357.4	374.3
75°	227.7	254.9	266.0	290.4	306.0
77.5°	173.1	191.1	197.5	225.2	235.6
80°	124.6	135.8	146.9	164.7	170.7
82.5°	81.8	87.5	98.2	107.0	109.8
85°	49.5	50.9	57.3	61.5	63.5
87.5°	22.5	21.0	23.1	25.6	25.8
90°	0.5	0.5	0.5	0.5	0.5

(END OF REPORT)