

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: 168P140

Luminaire Tested: **204/240BX**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 168P140
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: 204/240BX
Description: Neo-ray Fenestra Series 204 Luminaire with side
mounted curved acrylic diffusers and curved perms.
Light Source: Four - F40BX/SPX35/RS - 3150 Lumens ea. - 40 Watts ea.
Ballast/Driver: Advance REL-2TTS40 Electronic - L.O.B.F. = 86.7%
Advance REL-2TTS40 Electronic - L.O.B.F. = 86.0%

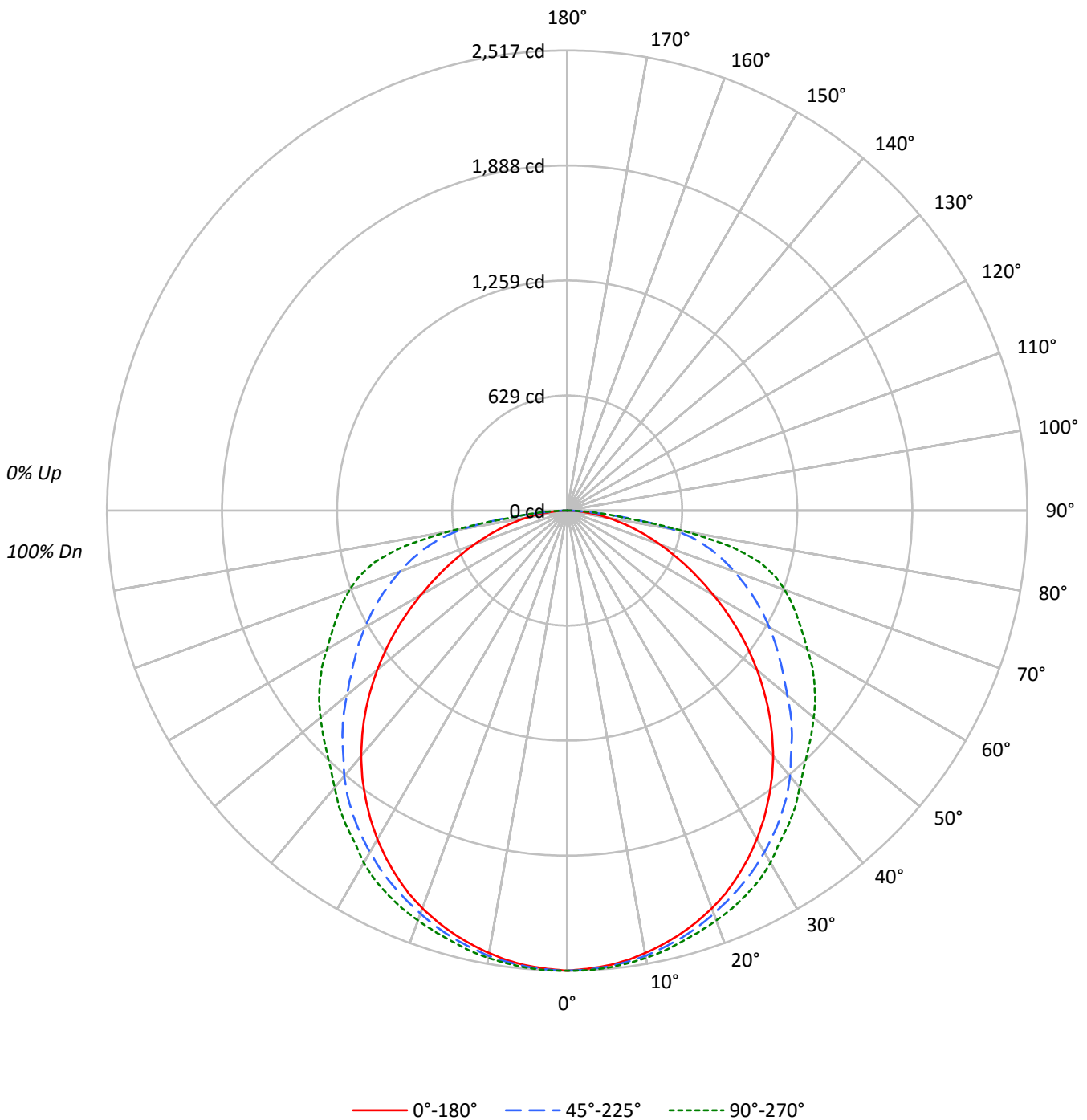
Summary

Lumens per Lamp: 3150 (4 lamps)
Luminaire Lumens: 7920.0 lumens
Efficiency: 62.9%
Efficacy: 59.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.31 / 1.4
Luminous Opening: Rectangular (W 1.92' x L: 3.92' x H: 0')
CIE Type: Direct

Input Watts (W): 134
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	75	75	75	75	73	73	73	73	70	70	70	67	67	67	64	64	64	63
1	68	64	61	59	66	63	60	58	60	58	56	58	56	54	55	54	53	51
2	61	56	51	47	59	54	50	46	52	48	45	50	47	44	48	45	43	42
3	55	48	43	39	54	47	42	38	45	41	37	44	40	37	42	39	36	35
4	51	43	37	32	49	42	36	32	40	35	32	39	35	31	37	34	31	29
5	46	38	32	28	45	37	32	27	36	31	27	35	30	27	33	30	27	25
6	43	34	28	24	42	33	28	24	32	27	24	31	27	23	30	26	23	22
7	40	31	25	21	39	30	25	21	29	24	21	28	24	21	28	24	21	19
8	37	28	23	19	36	28	22	19	27	22	19	26	22	18	25	21	18	17
9	34	26	20	17	34	25	20	17	25	20	17	24	20	17	23	19	17	15
10	32	24	19	15	31	23	19	15	23	18	15	22	18	15	22	18	15	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3600	3600	3600
5°	3588	3596	3605
10°	3570	3591	3609
15°	3549	3582	3611
20°	3523	3570	3631
25°	3483	3566	3659
30°	3427	3564	3674
35°	3356	3560	3675
40°	3273	3542	3693
45°	3159	3517	3764
50°	3017	3498	3918
55°	2847	3541	4117
60°	2646	3653	4339
65°	2443	3817	4711
70°	2254	4069	5294
75°	2067	4470	6029
80°	1853	4802	5353
85°	1460	2478	3216



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	238.0	3.0	1.9
10°-20°	683.0	8.6	5.4
20°-30°	1043.3	13.2	8.3
30°-40°	1266.1	16.0	10.0
40°-50°	1332.1	16.8	10.6
50°-60°	1267.2	16.0	10.1
60°-70°	1084.7	13.7	8.6
70°-80°	797.1	10.1	6.3
80°-90°	208.5	2.6	1.7
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°	1964.3	24.8	15.6
0°-40°	3230.5	40.8	25.6
0°-60°	5829.8	73.6	46.3
0°-90°	7920.0	100.0	62.9
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°	7920.0	100.0	62.9

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2517	2517	2517	2517	2517	
5°	2499	2498	2505	2510	2511	237
15°	2397	2403	2419	2432	2439	676
25°	2207	2224	2260	2308	2319	1017
35°	1922	1953	2039	2084	2105	1202
45°	1562	1628	1739	1818	1861	1203
55°	1142	1261	1420	1591	1651	1020
65°	722	866	1128	1324	1392	718
75°	374	518	809	1029	1091	397
85°	89	134	151	187	196	102
90°	0	0	0	0	0	5
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2517	2517	2517	2517	2517
2.5°	2509	2509	2513	2518	2517
5°	2499	2498	2505	2510	2511
7.5°	2482	2484	2491	2498	2499
10°	2458	2461	2473	2483	2485
12.5°	2429	2435	2447	2461	2466
15°	2397	2403	2419	2432	2439
17.5°	2359	2367	2386	2404	2413
20°	2315	2325	2346	2377	2386
22.5°	2266	2277	2304	2346	2356
25°	2207	2224	2260	2308	2319
27.5°	2145	2162	2212	2267	2277
30°	2075	2096	2158	2217	2225
32.5°	2001	2026	2100	2157	2158
35°	1922	1953	2039	2084	2105
37.5°	1840	1875	1972	2023	2048
40°	1753	1795	1897	1958	1978
42.5°	1659	1713	1812	1885	1914
45°	1562	1628	1739	1818	1861
47.5°	1459	1540	1660	1759	1812
50°	1356	1449	1572	1705	1761
52.5°	1250	1356	1493	1648	1710
55°	1142	1261	1420	1591	1651
57.5°	1033	1161	1350	1529	1590
60°	925	1056	1277	1463	1517
62.5°	820	962	1203	1391	1452
65°	722	866	1128	1324	1392
67.5°	628	771	1050	1262	1332
70°	539	684	973	1196	1266
72.5°	454	600	894	1121	1191
75°	374	518	809	1029	1091
77.5°	297	437	711	895	928
80°	225	354	583	666	650
82.5°	158	257	379	319	334
85°	89	134	151	187	196
87.5°	33	41	60	75	78
90°	0	0	0	0	0
92.5°	0	0	0	0	0
95°	0	0	0	0	0
97.5°	0	0	0	0	0
100°	0	0	0	0	0
102.5°	0	0	0	0	0
105°	0	0	0	0	0
107.5°	0	0	0	0	0
110°	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0	0	0	0	0
115°	0	0	0	0	0
117.5°	0	0	0	0	0
120°	0	0	0	0	0
122.5°	0	0	0	0	0
125°	0	0	0	0	0
127.5°	0	0	0	0	0
130°	0	0	0	0	0
132.5°	0	0	0	0	0
135°	0	0	0	0	0
137.5°	0	0	0	0	0
140°	0	0	0	0	0
142.5°	0	0	0	0	0
145°	0	0	0	0	0
147.5°	0	0	0	0	0
150°	0	0	0	0	0
152.5°	0	0	0	0	0
155°	0	0	0	0	0
157.5°	0	0	0	0	0
160°	0	0	0	0	0
162.5°	0	0	0	0	0
165°	0	0	0	0	0
167.5°	0	0	0	0	0
170°	0	0	0	0	0
172.5°	0	0	0	0	0
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)