

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: 168P144

Luminaire Tested: **S222/2BX40/TG/G120/W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: 168P144  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S222/2BX40/TG/G120/W  
Description: Neo-ray Fenestra Series 222 Luminaire with side  
mounted curved acrylic diffusers and curved perms.  
Light Source: Two - F40BX/SPX35/RS - 3150 Lumens ea. - 40 Watts ea.  
Ballast/Driver: Sylvania QT 2X40/120 DL Electronic - L.O.B.F. = 96.3%

**Summary**

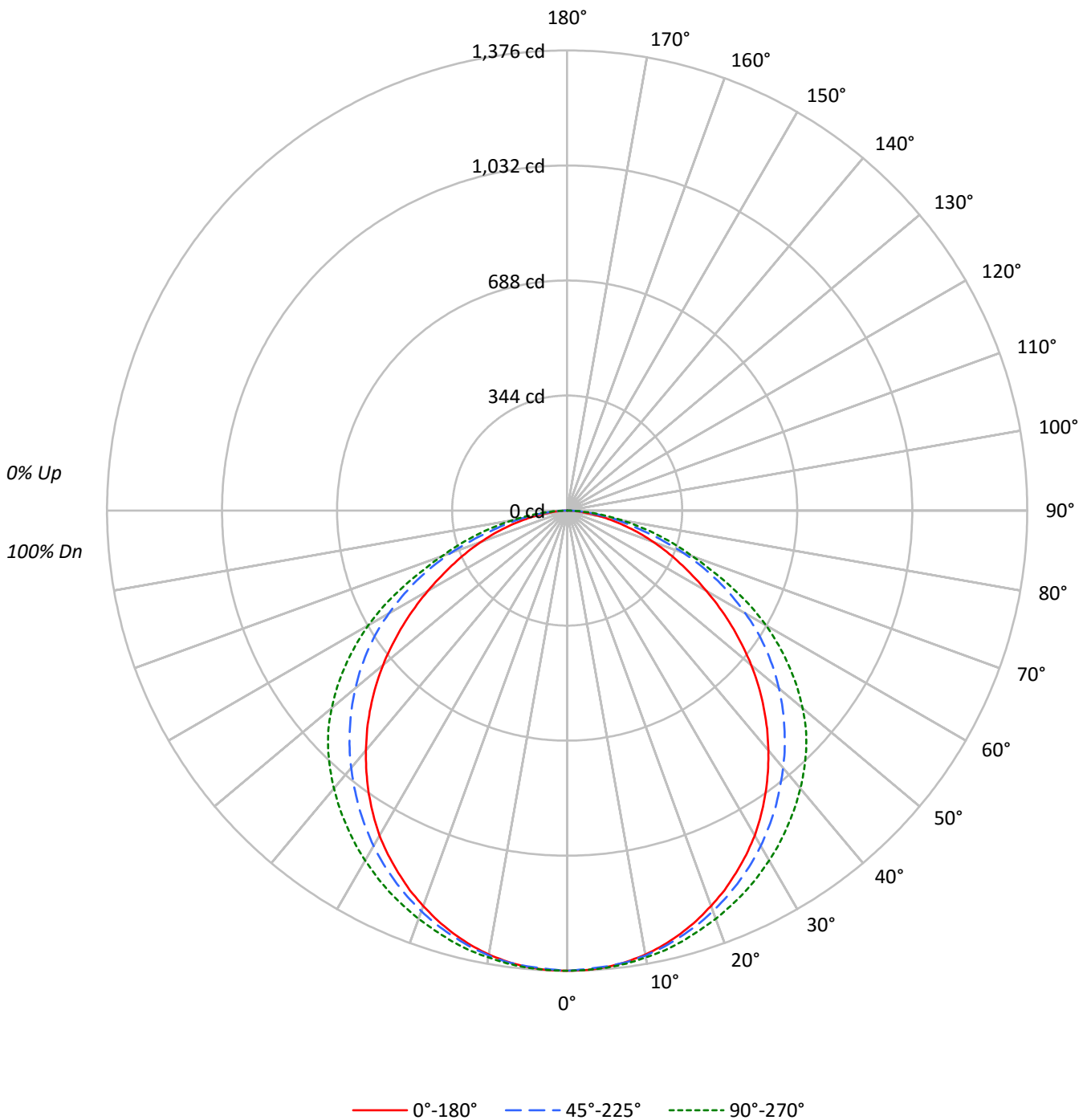
Lumens per Lamp: 3150 (2 lamps)  
Luminaire Lumens: 3882.8 lumens  
Efficiency: 61.6%  
Efficacy: 53.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.38  
Luminous Opening: Rectangular (W 1.95' x L: 1.93' x H: 0')  
CIE Type: Direct

Input Watts (W): 73  
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	73	73	73	73	72	72	72	72	68	68	68	66	66	66	63	63	63	62
1	67	64	62	59	65	63	60	58	60	58	56	58	56	55	56	54	53	52
2	61	56	52	48	59	55	51	48	53	49	47	51	48	45	49	46	44	43
3	56	49	44	40	54	48	44	40	46	42	39	45	41	38	43	40	38	36
4	51	44	38	34	49	43	38	34	41	37	33	40	36	33	38	35	32	31
5	47	39	33	29	46	38	33	29	37	32	29	36	32	28	34	31	28	27
6	43	35	29	25	42	34	29	25	33	29	25	32	28	25	31	28	25	23
7	40	32	26	22	39	31	26	22	30	26	22	29	25	22	29	25	22	21
8	37	29	24	20	36	28	23	20	28	23	20	27	23	20	26	22	20	18
9	35	27	21	18	34	26	21	18	25	21	18	25	21	18	24	20	18	17
10	33	24	20	16	32	24	19	16	24	19	16	23	19	16	22	19	16	15

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

	0°	45°	90°
0°	3935	3935	3935
5°	3933	3928	3939
10°	3915	3924	3941
15°	3879	3903	3947
20°	3829	3881	3954
25°	3771	3853	3970
30°	3705	3824	3989
35°	3610	3788	4015
40°	3495	3752	4051
45°	3361	3717	4089
50°	3199	3680	4089
55°	2992	3625	4039
60°	2751	3524	3930
65°	2518	3363	3675
70°	2291	3086	3328
75°	2022	2597	3083
80°	1680	2289	2718
85°	1214	1903	2166



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	130.2	3.4	2.1
10°-20°	372.6	9.6	5.9
20°-30°	564.2	14.5	9.0
30°-40°	680.9	17.5	10.8
40°-50°	709.1	18.3	11.3
50°-60°	637.7	16.4	10.1
60°-70°	470.7	12.1	7.5
70°-80°	252.3	6.5	4.0
80°-90°	65.1	1.7	1.0
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°	1067.0	27.5	16.9
0°-40°	1747.9	45.0	27.7
0°-60°	3094.7	79.7	49.1
0°-90°	3882.8	100.0	61.6
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°	3882.8	100.0	61.6

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1376	1376	1376	1376	1376	
5°	1370	1370	1368	1370	1372	130
15°	1310	1312	1318	1330	1333	369
25°	1195	1202	1221	1247	1258	551
35°	1034	1047	1085	1130	1150	646
45°	831	855	919	984	1011	640
55°	600	638	727	786	810	536
65°	372	420	497	532	543	370
75°	183	213	235	265	279	195
85°	37	46	58	64	66	44
90°	0	0	0	0	0	2
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°	1376	1376	1376	1376	1376
2.5°	1375	1374	1372	1375	1375
5°	1370	1370	1368	1370	1372
7.5°	1361	1361	1362	1364	1366
10°	1348	1349	1351	1356	1357
12.5°	1331	1332	1336	1345	1347
15°	1310	1312	1318	1330	1333
17.5°	1286	1288	1298	1312	1316
20°	1258	1263	1275	1293	1299
22.5°	1229	1233	1249	1270	1279
25°	1195	1202	1221	1247	1258
27.5°	1160	1167	1191	1221	1234
30°	1122	1130	1158	1193	1208
32.5°	1079	1090	1122	1162	1181
35°	1034	1047	1085	1130	1150
37.5°	986	1001	1045	1096	1119
40°	936	954	1005	1061	1085
42.5°	885	905	963	1024	1049
45°	831	855	919	984	1011
47.5°	776	803	874	942	969
50°	719	748	827	896	919
52.5°	659	694	778	843	867
55°	600	638	727	786	810
57.5°	540	583	674	729	750
60°	481	528	616	667	687
62.5°	424	473	557	602	618
65°	372	420	497	532	543
67.5°	322	368	435	457	467
70°	274	316	369	382	398
72.5°	228	264	301	322	338
75°	183	213	235	265	279
77.5°	141	164	185	210	220
80°	102	118	139	157	165
82.5°	67	77	96	108	113
85°	37	46	58	64	66
87.5°	16	20	24	27	28
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)