

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: 168p247

Luminaire Tested: **83DP-2T8-ST4D-2EB-SI-S72**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 168p247
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: 83DP-2T8-ST4D-2EB-SI-S72
Description: NEORAY GEO DIRECT PENDANT MOUNT LUMINAIRE, 2 32T8, WITH BOLD
WHITE BAFFLE
Light Source: TWO - F032/735 - 2850 LUMENS - 32 WATTS
Ballast/Driver: B232IUNVHP-B

Summary

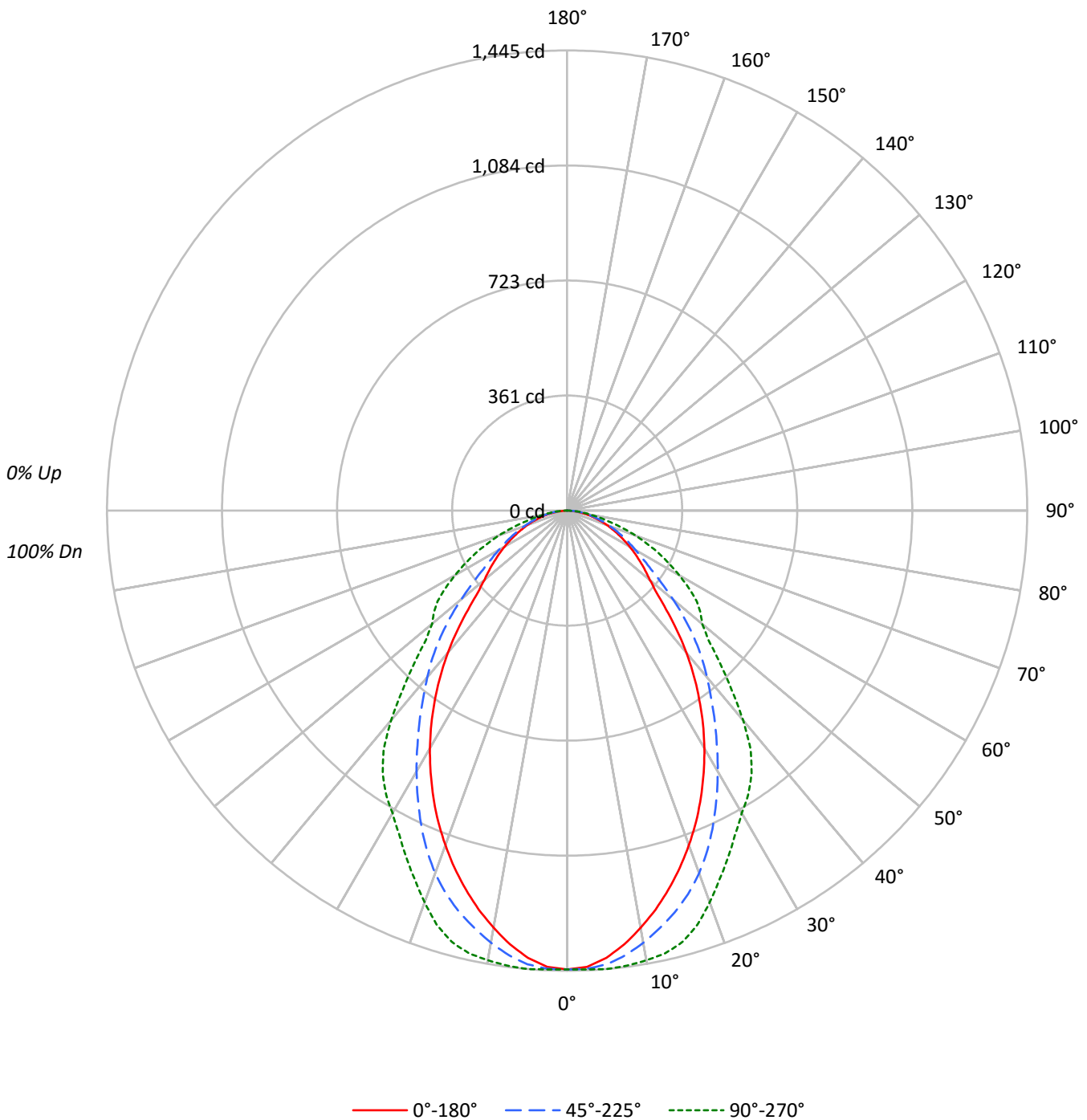
Lumens per Lamp: 2850 (2 lamps)
Luminaire Lumens: 2631.6 lumens
Efficiency: 46.2%
Efficacy: 47.8 lumens/watt
Spacing Criteria (0/90/45): 0.95 / 1.14 / 1.11
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 55
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

TEST NUMBER: 168p247

CATALOG NUMBER: 83DP-2T8-ST4D-2EB-SI-S72

Luminous Intensity Polar Plot





TEST NUMBER: 168p247

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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	55	55	55	55	54	54	54	54	51	51	51	49	49	49	47	47	47	46
1	51	49	47	46	50	48	46	45	46	45	44	44	43	42	43	42	41	40
2	47	44	41	38	46	43	40	38	41	39	37	40	38	36	38	37	36	35
3	43	39	36	33	42	38	35	33	37	34	32	36	33	32	35	33	31	30
4	40	35	31	29	39	35	31	29	33	30	28	32	30	28	31	29	27	26
5	37	32	28	25	36	31	28	25	30	27	25	29	27	25	29	26	24	23
6	35	29	25	23	34	29	25	22	28	25	22	27	24	22	26	24	22	21
7	32	27	23	20	32	26	23	20	26	22	20	25	22	20	24	22	20	19
8	30	24	21	18	30	24	21	18	24	20	18	23	20	18	23	20	18	17
9	28	23	19	17	28	22	19	17	22	19	17	21	19	17	21	18	17	16
10	27	21	18	15	26	21	18	15	20	17	15	20	17	15	20	17	15	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9306	9306	9306
5°	9141	9271	9368
10°	8722	9037	9404
15°	8231	8732	9374
20°	7684	8330	8997
25°	7083	7739	8537
30°	6428	7055	8181
35°	5700	6370	7963
40°	4915	5758	7250
45°	4019	5142	6202
50°	3406	4361	5556
55°	3153	3626	5596
60°	2932	3203	5257
65°	2705	2949	4844
70°	2511	2700	4286
75°	2271	2495	3518
80°	2008	2306	2864
85°	1482	2223	2371



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	134.8	5.1	2.4
10°-20°	367.6	14.0	6.4
20°-30°	499.9	19.0	8.8
30°-40°	522.1	19.8	9.2
40°-50°	431.0	16.4	7.6
50°-60°	315.3	12.0	5.5
60°-70°	215.3	8.2	3.8
70°-80°	113.8	4.3	2.0
80°-90°	31.6	1.2	0.6
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°	1002.4	38.1	17.6
0°-40°	1524.6	57.9	26.7
0°-60°	2270.8	86.3	39.8
0°-90°	2631.6	100.0	46.2
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°	2631.6	100.0	46.2

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1441	1441	1441	1441	1441	
5°	1410	1416	1430	1444	1445	132
15°	1231	1255	1306	1369	1402	345
25°	994	1030	1086	1142	1198	456
35°	723	763	808	917	1010	451
45°	440	476	563	628	679	344
55°	280	285	322	412	497	251
65°	177	180	193	248	317	176
75°	91	93	100	116	141	97
85°	20	24	30	32	32	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1441	1441	1441	1441	1441
2.5°	1434	1435	1440	1445	1442
5°	1410	1416	1430	1444	1445
7.5°	1374	1386	1408	1433	1441
10°	1330	1348	1378	1416	1434
12.5°	1283	1303	1343	1398	1424
15°	1231	1255	1306	1369	1402
17.5°	1176	1203	1263	1327	1363
20°	1118	1147	1212	1269	1309
22.5°	1058	1089	1153	1205	1252
25°	994	1030	1086	1142	1198
27.5°	928	966	1016	1080	1144
30°	862	901	946	1020	1097
32.5°	794	833	875	965	1058
35°	723	763	808	917	1010
37.5°	653	691	743	860	947
40°	583	618	683	793	860
42.5°	511	546	625	711	765
45°	440	476	563	628	679
47.5°	379	408	499	553	601
50°	339	352	434	488	553
52.5°	309	315	373	444	528
55°	280	285	322	412	497
57.5°	253	257	281	374	453
60°	227	230	248	330	407
62.5°	201	204	219	288	362
65°	177	180	193	248	317
67.5°	153	156	167	209	271
70°	133	134	143	175	227
72.5°	111	113	121	143	184
75°	91	93	100	116	141
77.5°	72	74	80	92	106
80°	54	56	62	69	77
82.5°	37	40	45	50	53
85°	20	24	30	32	32
87.5°	6	12	13	13	12
90°	0	0	0	0	0

(END OF REPORT)