

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: 168p248

Luminaire Tested: **83DP-2T8-ST4D-2EB-SI-S79**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: 168p248  
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-S79  
Description: NEORAY GEO DIRECT PENDANT MOUNT LUMINAIRE, 2 32T8, WITH  
PARABOLIC BAFFLE  
Light Source: TWO - F032/735 - 2850 LUMENS - 32 WATTS  
Ballast/Driver: B232IUNVHP-B

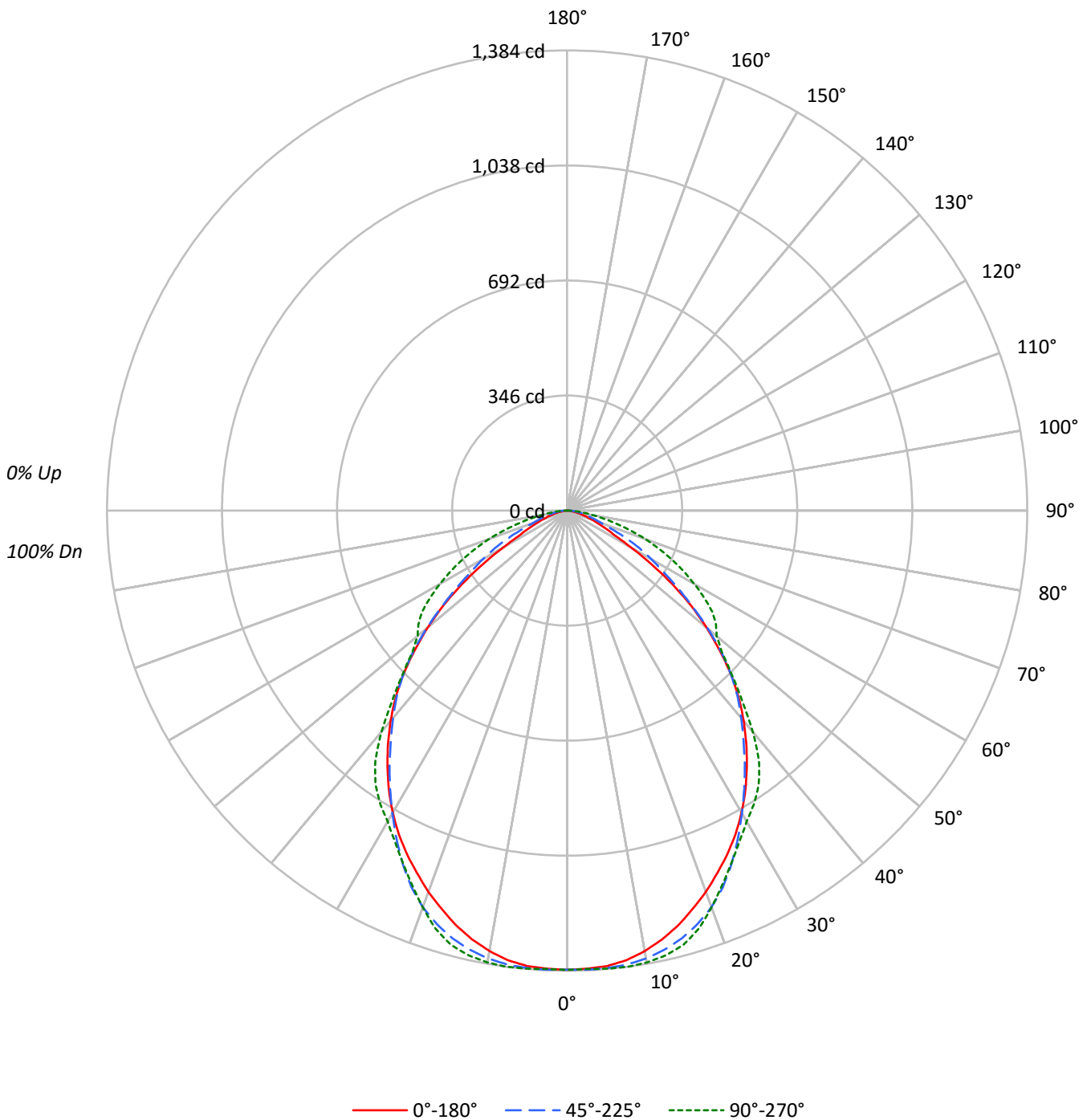
**Summary**

Lumens per Lamp: 2850 (2 lamps)  
Luminaire Lumens: 2885.4 lumens  
Efficiency: 50.6%  
Efficacy: 52.5 lumens/watt  
Spacing Criteria (0/90/45): 1.14 / 1.17 / 1.22  
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

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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	60	60	60	60	59	59	59	59	56	56	56	54	54	54	52	52	52	51
1	56	54	52	50	55	53	51	50	51	49	48	49	48	47	47	46	45	44
2	52	48	45	43	50	47	44	42	45	43	41	44	42	40	42	41	39	38
3	48	43	39	36	46	42	39	36	41	38	35	39	37	35	38	36	34	33
4	44	39	35	32	43	38	34	31	37	33	31	36	33	31	34	32	30	29
5	41	35	31	28	40	34	30	28	33	30	27	32	29	27	31	29	27	26
6	38	32	28	25	37	31	27	24	30	27	24	30	26	24	29	26	24	23
7	35	29	25	22	34	29	25	22	28	24	22	27	24	22	26	24	21	21
8	33	27	23	20	32	26	22	20	26	22	20	25	22	20	24	22	19	19
9	31	25	21	18	30	24	20	18	24	20	18	23	20	18	23	20	18	17
10	29	23	19	16	28	22	19	16	22	19	16	22	18	16	21	18	16	15

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

	0°	45°	90°
0°	8919	8919	8919
5°	8914	8953	8966
10°	8820	8971	9050
15°	8632	8906	9040
20°	8385	8722	8728
25°	8124	8345	8330
30°	7823	7838	8054
35°	7427	7340	7924
40°	6964	6863	7326
45°	6366	6366	6412
50°	5496	5546	5898
55°	4346	4571	6013
60°	2842	3772	5709
65°	1956	2949	5287
70°	1473	2058	4702
75°	1098	1697	3818
80°	781	1525	2938
85°	593	1704	2297



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	131.3	4.6	2.3
10°-20°	373.1	12.9	6.5
20°-30°	535.5	18.6	9.4
30°-40°	598.0	20.7	10.5
40°-50°	535.9	18.6	9.4
50°-60°	385.8	13.4	6.8
60°-70°	212.8	7.4	3.7
70°-80°	89.3	3.1	1.6
80°-90°	23.6	0.8	0.4
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°	1039.9	36.0	18.2
0°-40°	1637.9	56.8	28.7
0°-60°	2559.6	88.7	44.9
0°-90°	2885.4	100.0	50.6
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°	2885.4	100.0	50.6

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1381	1381	1381	1381	1381	
5°	1375	1378	1381	1386	1383	130
15°	1291	1308	1332	1350	1352	363
25°	1140	1165	1171	1166	1169	524
35°	942	967	931	969	1005	588
45°	697	703	697	685	702	533
55°	386	403	406	463	534	343
65°	128	135	193	278	346	133
75°	44	51	68	106	153	49
85°	8	16	23	28	31	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1381	1381	1381	1381	1381
2.5°	1379	1379	1382	1385	1380
5°	1375	1378	1381	1386	1383
7.5°	1364	1369	1377	1384	1384
10°	1345	1355	1368	1378	1380
12.5°	1321	1334	1353	1368	1370
15°	1291	1308	1332	1350	1352
17.5°	1256	1277	1304	1320	1318
20°	1220	1242	1269	1275	1270
22.5°	1180	1205	1225	1221	1219
25°	1140	1165	1171	1166	1169
27.5°	1097	1121	1112	1112	1122
30°	1049	1075	1051	1059	1080
32.5°	998	1024	991	1011	1046
35°	942	967	931	969	1005
37.5°	885	906	871	916	948
40°	826	841	814	852	869
42.5°	764	773	759	770	781
45°	697	703	697	685	702
47.5°	622	629	628	608	631
50°	547	555	552	541	587
52.5°	469	479	475	495	564
55°	386	403	406	463	534
57.5°	302	325	343	424	489
60°	220	250	292	376	442
62.5°	161	180	245	326	394
65°	128	135	193	278	346
67.5°	101	107	145	230	297
70°	78	85	109	185	249
72.5°	60	67	86	143	202
75°	44	51	68	106	153
77.5°	32	40	54	78	114
80°	21	30	41	57	79
82.5°	13	22	31	41	52
85°	8	16	23	28	31
87.5°	4	10	14	13	13
90°	0	0	0	0	0

(END OF REPORT)