

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P33923

Luminaire Tested: **S123DW-235-0048-1D-UDD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P33923
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DW-235-0048-1D-UDD-1-W
Description: NEORAY DIRECT- INDIRECT 3" FIXTURE WITH A FLUSH DIFFUSE
LENS.LL2
Light Source: [117] NICHIA 3500K LED
Nichia 757D
Ballast/Driver: [1] OSRAM SYLVANIA ELECTRONIC DRIVER
OT48WPRG2000C

Summary

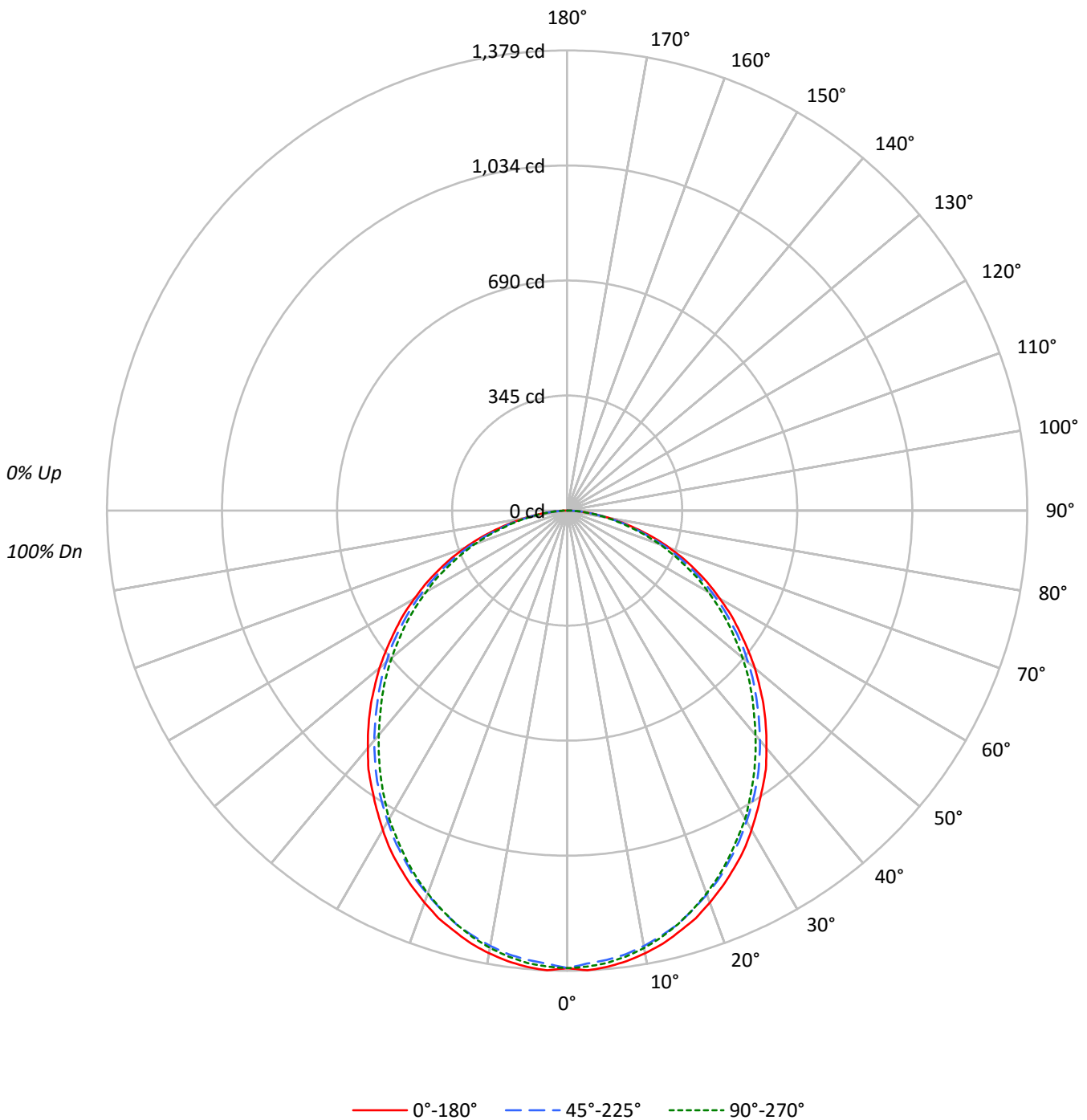
Lumens per Lamp: N/A
Luminaire Lumens: 3503.3 lumens
Efficiency: N/A
Efficacy: 80.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.8
Input Voltage (V): 120.03
Input Current (A_{in}): 0.3668
Voltage Rise (V): NR
Power Factor: 0.999
Total Harmonic Distortion (THDi): 8.11
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: HR
Ambient Temperature (°C): NR
Test Distance: 25 FT

TEST NUMBER: P33923

CATALOG NUMBER: S123DW-235-0048-1D-UDD-1-W

Luminous Intensity Polar Plot





TEST NUMBER: P33923

CATALOG NUMBER: S123DW-235-0048-1D-UDD-1-W

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14757	14757	14757
5°	14835	14608	14706
10°	14723	14482	14548
15°	14542	14297	14297
20°	14318	14021	13986
25°	14050	13706	13623
30°	13734	13361	13262
35°	13390	13035	12799
40°	13054	12632	12337
45°	12696	12224	11919
50°	12291	11856	11488
55°	11823	11429	11053
60°	11388	10958	10506
65°	10901	10417	9933
70°	10228	9725	9284
75°	9191	8650	8235
80°	7810	7500	7252
85°	6052	6052	5681



TEST NUMBER: P33923

CATALOG NUMBER: S123DW-235-0048-1D-UDD-1-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.2	3.7
10°-20°	363.6	10.4
20°-30°	534.9	15.3
30°-40°	622.2	17.8
40°-50°	622.6	17.8
50°-60°	545.7	15.6
60°-70°	404.8	11.6
70°-80°	222.9	6.4
80°-90°	57.3	1.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1027.7	29.3
0°-40°	1649.9	47.1
0°-60°	2818.1	80.4
0°-90°	3503.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3503.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1371	1371	1371	1371	1371	
5°	1373	1367	1352	1363	1361	130
15°	1305	1298	1283	1288	1283	368
25°	1183	1173	1154	1153	1147	545
35°	1019	1010	992	982	974	638
45°	834	824	803	791	783	643
55°	630	627	609	596	589	565
65°	428	422	409	395	390	424
75°	221	217	208	202	198	235
85°	49	49	49	47	46	60
90°	0	0	0	0	0	



TEST NUMBER: P33923

CATALOG NUMBER: S123DW-235-0048-1D-UDD-1-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1371	1371	1371	1371	1371
2.5°	1379	1373	1359	1371	1368
5°	1373	1367	1352	1363	1361
7.5°	1362	1356	1341	1351	1348
10°	1347	1341	1325	1334	1331
12.5°	1329	1322	1305	1313	1309
15°	1305	1298	1283	1288	1283
17.5°	1281	1273	1254	1259	1253
20°	1250	1243	1224	1226	1221
22.5°	1218	1208	1192	1192	1186
25°	1183	1173	1154	1153	1147
27.5°	1147	1135	1117	1114	1106
30°	1105	1096	1075	1071	1067
32.5°	1062	1054	1034	1027	1020
35°	1019	1010	992	982	974
37.5°	978	964	946	935	927
40°	929	920	899	887	878
42.5°	882	872	851	840	829
45°	834	824	803	791	783
47.5°	783	776	757	743	736
50°	734	727	708	693	686
52.5°	682	677	660	644	636
55°	630	627	609	596	589
57.5°	582	575	560	547	538
60°	529	526	509	497	488
62.5°	480	472	459	447	442
65°	428	422	409	395	390
67.5°	377	369	359	348	342
70°	325	317	309	297	295
72.5°	274	266	257	250	247
75°	221	217	208	202	198
77.5°	172	168	164	159	156
80°	126	124	121	116	117
82.5°	85	83	82	80	78
85°	49	49	49	47	46
87.5°	22	21	21	20	20
90°	0	0	0	0	0

(END OF REPORT)