

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1004667

Luminaire Tested: S125DR-B850DB50-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1004667
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-17)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DR-B850DB50-4F0-XX-W2A-D
Description: Define 5 Direct Recessed with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}
Light Source: -
Ballast/Driver: -

Summary

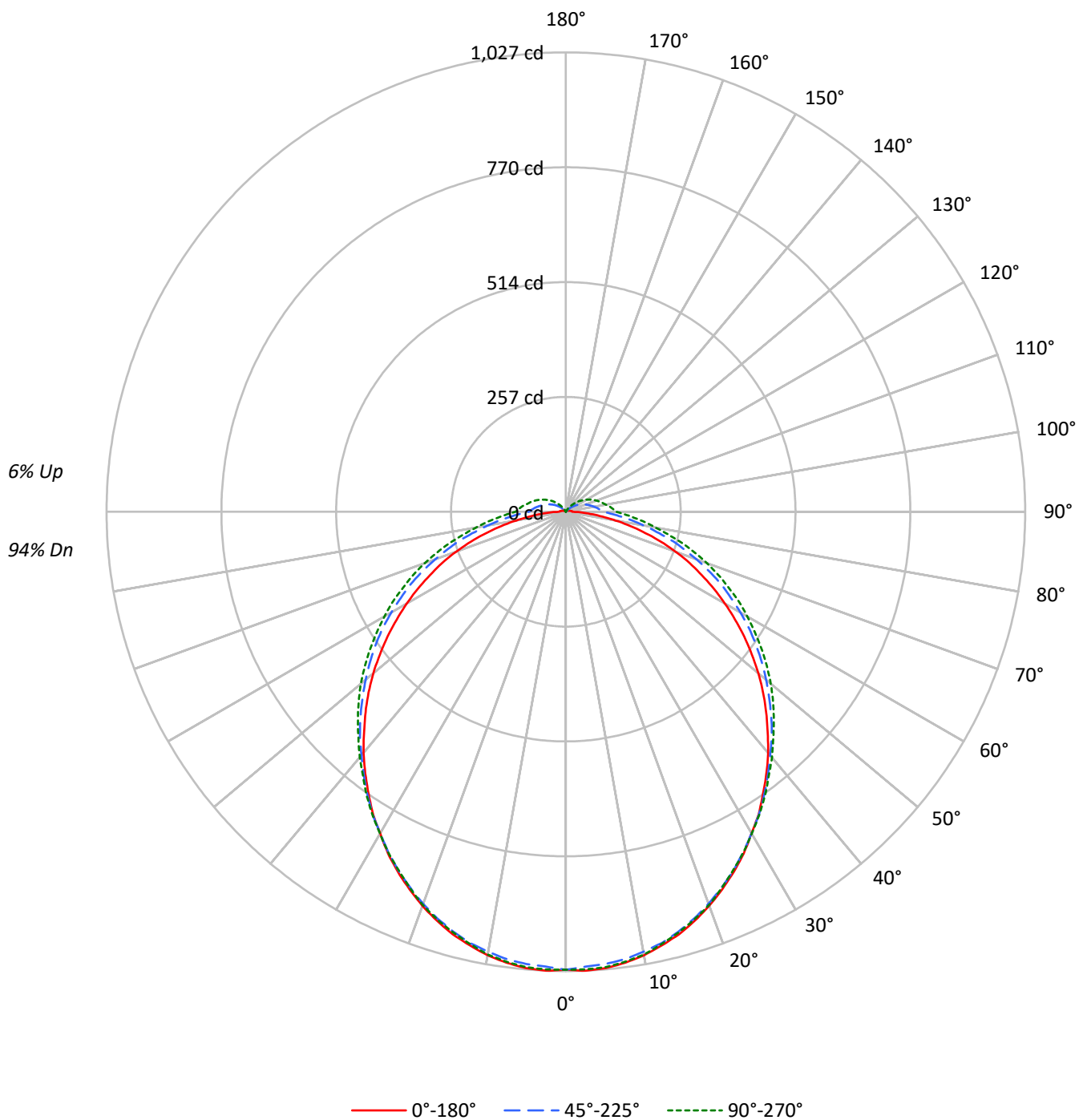
Lumens per Lamp: N/A
Luminaire Lumens: 3172.0 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35.9
Input Voltage (V):
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: 24 FT

TEST NUMBER: P1004667

CATALOG NUMBER: S125DR-B850DB50-4F0-XX-W2A-D

Luminous Intensity Polar Plot



TEST NUMBER: P1004667

CATALOG NUMBER: S125DR-B850DB50-4F0-XX-W2A-D

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	118	118	118	118	114	114	114	114	108	108	108	102	102	102	96	96	96
1	106	101	96	92	103	98	94	90	93	89	86	88	85	82	83	81	79
2	96	88	80	74	93	85	78	73	81	75	70	76	72	68	72	69	65
3	88	77	68	61	84	75	67	60	71	64	59	67	61	57	64	59	55
4	80	68	59	52	77	66	58	51	63	55	50	60	53	48	57	51	47
5	74	60	51	44	71	59	50	44	56	49	43	53	47	42	51	45	41
6	68	54	45	39	66	53	45	38	51	43	38	48	42	37	46	40	36
7	63	49	40	34	61	48	40	34	46	39	33	44	37	33	42	36	32
8	59	45	36	30	57	44	36	30	42	35	30	40	34	29	39	33	29
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26
10	51	38	30	25	50	37	30	25	36	29	24	35	28	24	33	28	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6560	6560	6560
5°	6585	6527	6572
10°	6551	6498	6538
15°	6486	6445	6459
20°	6393	6359	6379
25°	6280	6259	6252
30°	6142	6142	6149
35°	6015	6046	6070
40°	5886	5944	5995
45°	5739	5885	5958
50°	5604	5824	5964
55°	5439	5797	5966
60°	5262	5775	6007
65°	5083	5799	6087
70°	4889	5811	6281
75°	4572	6013	6634
80°	4184	6557	7520
85°	4058	9079	11292

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 19316 cd/sqm

TEST NUMBER: P1004667

CATALOG NUMBER: S125DR-B850DB50-4F0-XX-W2A-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.9	3.1
10°-20°	275.1	8.7
20°-30°	409.0	12.9
30°-40°	484.4	15.3
40°-50°	500.8	15.8
50°-60°	461.3	14.5
60°-70°	372.9	11.8
70°-80°	249.5	7.9
80°-90°	129.0	4.1
90°-100°	72.7	2.3
100°-110°	53.6	1.7
110°-120°	35.9	1.1
120°-130°	20.3	0.6
130°-140°	8.9	0.3
140°-150°	1.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	781.0	24.6
0°-40°	1265.4	39.9
0°-60°	2227.5	70.2
0°-90°	2979.0	93.9
90°-120°	162.1	5.1
90°-150°	193.0	6.1
90°-180°	193.0	6.1
0°-180°	3172.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1024	1024	1024	1024	1024	
5°	1024	1022	1015	1023	1022	97
15°	978	979	972	978	974	275
25°	888	891	885	889	884	409
35°	769	776	773	776	776	481
45°	633	644	650	656	658	489
55°	487	503	519	530	534	435
65°	335	358	382	398	402	333
75°	185	211	243	263	268	196
85°	55	88	124	146	154	58
90°	16	48	82	105	112	11
95°	13	39	73	95	102	10
105°	9	25	55	75	82	10
115°	6	13	39	57	63	6
125°	4	3	23	39	44	3
135°	2	1	8	21	26	2
145°	1	0	0	5	9	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

TEST NUMBER: P1004667

CATALOG NUMBER: S125DR-B850DB50-4F0-XX-W2A-D

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1023.9	1023.9	1023.9	1023.9	1023.9
2.5°	1027.0	1024.9	1017.9	1024.9	1023.9
5°	1023.9	1021.9	1014.9	1022.9	1021.9
7.5°	1016.9	1015.9	1008.9	1015.9	1014.9
10°	1006.9	1006.9	998.8	1005.9	1004.9
12.5°	992.8	993.8	987.8	992.8	989.8
15°	977.8	978.8	971.7	977.8	973.8
17.5°	958.7	960.7	953.7	958.7	955.7
20°	937.6	939.6	932.6	935.6	935.6
22.5°	913.5	917.5	909.5	913.5	910.5
25°	888.4	891.4	885.4	889.4	884.4
27.5°	861.3	865.3	858.3	861.3	859.3
30°	830.2	836.2	830.2	832.2	831.2
32.5°	802.1	807.1	803.1	805.1	804.1
35°	769.0	776.0	773.0	776.0	776.0
37.5°	736.8	742.9	741.9	745.9	744.9
40°	703.7	711.7	710.7	714.8	716.8
42.5°	667.6	678.6	681.6	686.6	686.6
45°	633.4	644.5	649.5	656.5	657.5
47.5°	598.3	608.3	616.4	626.4	628.4
50°	562.2	573.2	584.3	595.3	598.3
52.5°	524.0	538.1	552.1	564.2	566.2
55°	486.9	502.9	519.0	530.0	534.1
57.5°	448.7	467.8	485.9	497.9	500.9
60°	410.6	430.7	450.7	465.8	468.8
62.5°	373.4	393.5	415.6	432.7	436.7
65°	335.3	358.4	382.5	397.5	401.5
67.5°	300.2	322.2	346.3	364.4	369.4
70°	261.0	284.1	310.2	329.3	335.3
72.5°	222.9	247.0	276.1	297.1	301.2
75°	184.7	210.8	242.9	263.0	268.0
77.5°	147.6	177.7	207.8	229.9	233.9
80°	113.4	143.6	177.7	199.8	203.8
82.5°	82.3	114.4	149.6	170.7	178.7
85°	55.2	88.3	123.5	145.6	153.6
87.5°	35.1	67.3	101.4	124.5	131.5
90°	16.1	48.2	82.3	105.4	112.4
92.5°	14.1	43.2	78.3	100.4	107.4
95°	13.1	39.2	73.3	95.4	102.4
97.5°	12.0	36.1	69.3	90.3	97.4
100°	11.0	32.1	64.2	85.3	91.4
102.5°	10.0	29.1	60.2	80.3	86.3
105°	9.0	25.1	55.2	75.3	82.3
107.5°	8.0	22.1	51.2	71.3	77.3
110°	7.0	19.1	47.2	66.3	73.3



TEST NUMBER: P1004667

CATALOG NUMBER: S125DR-B850DB50-4F0-XX-W2A-D

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.0	16.1	43.2	61.2	68.3
115°	6.0	13.1	39.2	57.2	63.2
117.5°	5.0	10.0	35.1	52.2	59.2
120°	5.0	8.0	31.1	48.2	54.2
122.5°	4.0	5.0	27.1	43.2	49.2
125°	4.0	3.0	23.1	39.2	44.2
127.5°	3.0	2.0	19.1	34.1	40.2
130°	3.0	2.0	16.1	30.1	35.1
132.5°	2.0	2.0	12.0	26.1	30.1
135°	2.0	1.0	8.0	21.1	26.1
137.5°	2.0	1.0	5.0	17.1	21.1
140°	1.0	1.0	2.0	13.1	17.1
142.5°	1.0	0.0	0.0	9.0	13.1
145°	1.0	0.0	0.0	5.0	9.0
147.5°	0.0	0.0	0.0	2.0	4.0
150°	0.0	0.0	0.0	0.0	1.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)