

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: P1004649

Luminaire Tested: S125DR-B850DB2750-4F0-XX-W2A-D_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P1004649
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-B850DB2750-4F0-XX-W2A-D_3500K
Description: Define 5 Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

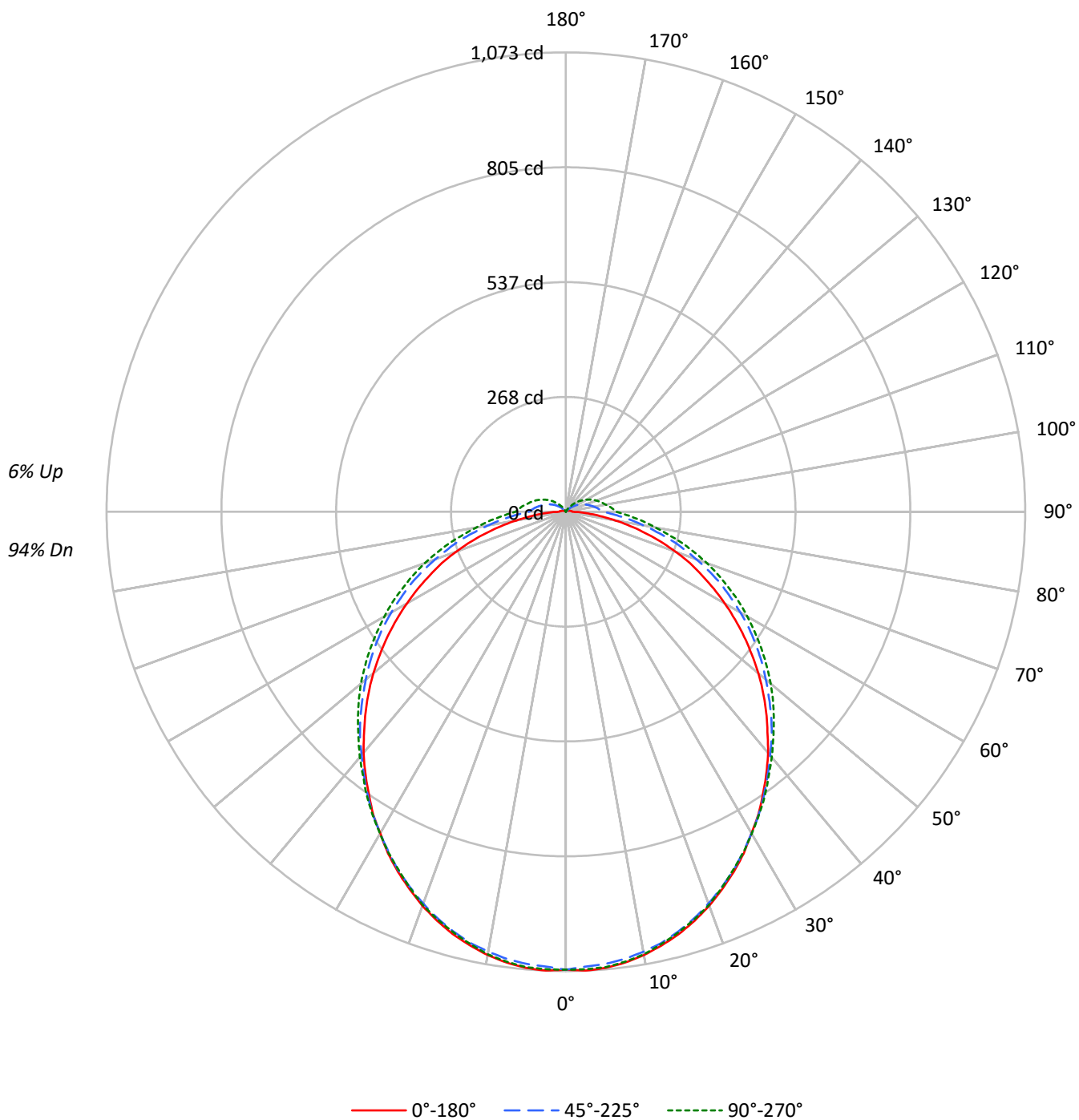
Lumens per Lamp: N/A
Luminaire Lumens: 3313.0 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Direct

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: P1004649

CATALOG NUMBER: S125DR-B850DB2750-4F0-XX-W2A-D_3500K

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
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°	6852	6852	6852
5°	6879	6817	6865
10°	6842	6787	6828
15°	6774	6732	6746
20°	6677	6641	6663
25°	6560	6538	6530
30°	6415	6415	6422
35°	6282	6314	6339
40°	6147	6208	6261
45°	5995	6147	6223
50°	5853	6082	6229
55°	5680	6055	6231
60°	5495	6033	6274
65°	5309	6057	6358
70°	5107	6070	6560
75°	4775	6280	6929
80°	4372	6848	7852
85°	4242	9483	11792

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 20182 cd/sqm

TEST NUMBER: P1004649

CATALOG NUMBER: S125DR-B850DB2750-4F0-XX-W2A-D_3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.2	3.1
10°-20°	287.3	8.7
20°-30°	427.2	12.9
30°-40°	505.9	15.3
40°-50°	523.1	15.8
50°-60°	481.9	14.5
60°-70°	389.5	11.8
70°-80°	260.6	7.9
80°-90°	134.7	4.1
90°-100°	75.9	2.3
100°-110°	55.9	1.7
110°-120°	37.4	1.1
120°-130°	21.2	0.6
130°-140°	9.3	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°	815.7	24.6
0°-40°	1321.6	39.9
0°-60°	2326.6	70.2
0°-90°	3111.4	93.9
90°-120°	169.3	5.1
90°-150°	201.6	6.1
90°-180°	202.0	6.1
0°-180°	3313.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1070	1067	1060	1068	1067	101
15°	1021	1022	1015	1021	1017	288
25°	928	931	925	929	924	427
35°	803	810	807	810	810	503
45°	662	673	678	686	687	511
55°	508	525	542	554	558	455
65°	350	374	400	415	419	348
75°	193	220	254	275	280	204
85°	58	92	129	152	160	60
90°	17	50	86	110	117	12
95°	14	41	76	100	107	11
105°	9	26	58	79	86	10
115°	6	14	41	60	66	6
125°	4	3	24	41	46	4
135°	2	1	8	22	27	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: P1004649

CATALOG NUMBER: S125DR-B850DB2750-4F0-XX-W2A-D_3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1069.5	1069.5	1069.5	1069.5	1069.5
2.5°	1072.6	1070.5	1063.2	1070.5	1069.5
5°	1069.5	1067.4	1060.0	1068.4	1067.4
7.5°	1062.1	1061.1	1053.7	1061.1	1060.0
10°	1051.6	1051.6	1043.2	1050.6	1049.5
12.5°	1037.0	1038.0	1031.7	1037.0	1033.8
15°	1021.2	1022.3	1014.9	1021.2	1017.0
17.5°	1001.3	1003.4	996.1	1001.3	998.2
20°	979.3	981.4	974.0	977.2	977.2
22.5°	954.1	958.3	949.9	954.1	951.0
25°	927.9	931.1	924.8	929.0	923.7
27.5°	899.6	903.8	896.5	899.6	897.5
30°	867.1	873.4	867.1	869.2	868.1
32.5°	837.7	843.0	838.8	840.9	839.8
35°	803.1	810.5	807.3	810.5	810.5
37.5°	769.6	775.9	774.8	779.0	778.0
40°	735.0	743.4	742.3	746.5	748.6
42.5°	697.2	708.8	711.9	717.2	717.2
45°	661.6	673.1	678.4	685.7	686.8
47.5°	624.9	635.4	643.8	654.3	656.4
50°	587.2	598.7	610.2	621.8	624.9
52.5°	547.3	562.0	576.7	589.3	591.3
55°	508.5	525.3	542.1	553.6	557.8
57.5°	468.7	488.6	507.5	520.1	523.2
60°	428.8	449.8	470.8	486.5	489.6
62.5°	390.0	411.0	434.1	451.9	456.1
65°	350.2	374.3	399.5	415.2	419.4
67.5°	313.5	336.6	361.7	380.6	385.8
70°	272.6	296.7	324.0	343.9	350.2
72.5°	232.8	257.9	288.3	310.4	314.5
75°	192.9	220.2	253.7	274.7	279.9
77.5°	154.1	185.6	217.0	240.1	244.3
80°	118.5	149.9	185.6	208.6	212.8
82.5°	86.0	119.5	156.2	178.2	186.6
85°	57.7	92.3	129.0	152.0	160.4
87.5°	36.7	70.2	105.9	130.0	137.4
90°	16.8	50.3	86.0	110.1	117.4
92.5°	14.7	45.1	81.8	104.8	112.2
95°	13.6	40.9	76.5	99.6	106.9
97.5°	12.6	37.7	72.3	94.4	101.7
100°	11.5	33.6	67.1	89.1	95.4
102.5°	10.5	30.4	62.9	83.9	90.2
105°	9.4	26.2	57.7	78.6	86.0
107.5°	8.4	23.1	53.5	74.4	80.7
110°	7.3	19.9	49.3	69.2	76.5

TEST NUMBER: P1004649

CATALOG NUMBER: S125DR-B850DB2750-4F0-XX-W2A-D_3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.3	16.8	45.1	64.0	71.3
115°	6.3	13.6	40.9	59.8	66.1
117.5°	5.2	10.5	36.7	54.5	61.9
120°	5.2	8.4	32.5	50.3	56.6
122.5°	4.2	5.2	28.3	45.1	51.4
125°	4.2	3.1	24.1	40.9	46.1
127.5°	3.1	2.1	19.9	35.6	41.9
130°	3.1	2.1	16.8	31.5	36.7
132.5°	2.1	2.1	12.6	27.3	31.5
135°	2.1	1.0	8.4	22.0	27.3
137.5°	2.1	1.0	5.2	17.8	22.0
140°	1.0	1.0	2.1	13.6	17.8
142.5°	1.0	0.0	0.0	9.4	13.6
145°	1.0	0.0	0.0	5.2	9.4
147.5°	0.0	0.0	0.0	2.1	4.2
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)