

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: P987549

Luminaire Tested: S122DR-B865DB2750-4F0-XX-W2A-D_4000K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P987549
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DR-B865DB2750-4F0-XX-W2A-D_4000K
Description: Define 2 Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}
Light Source: -
Ballast/Driver: -

Summary

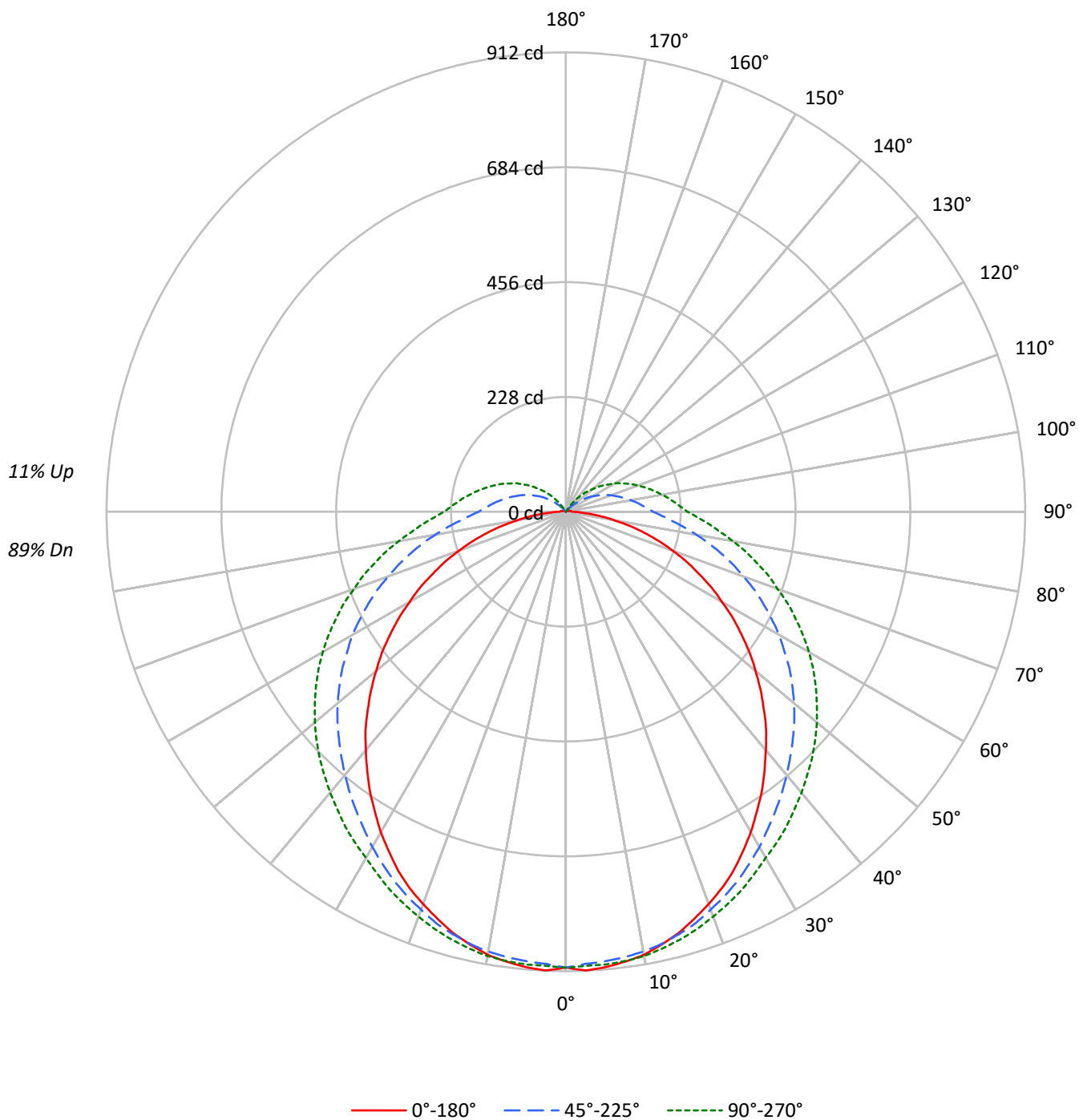
Lumens per Lamp: N/A
Luminaire Lumens: 3453.0 lumens
Efficiency: N/A
Efficacy: 73.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 46.8
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: P987549

CATALOG NUMBER: S122DR-B865DB2750-4F0-XX-W2A-D_4000K

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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92
1	104	98	93	88	100	95	90	86	88	85	81	82	79	77	77	75	72
2	94	84	77	70	90	81	74	68	76	70	65	71	66	62	66	62	59
3	85	73	64	57	81	71	63	56	66	59	54	62	56	51	58	53	49
4	77	64	55	48	74	62	54	47	58	51	45	55	48	43	51	46	42
5	71	57	48	41	68	56	47	40	52	44	39	49	42	37	46	40	36
6	65	51	42	35	63	50	41	35	47	39	34	44	37	32	42	36	31
7	60	46	37	31	58	45	37	31	43	35	30	40	34	29	38	32	28
8	56	42	34	28	54	41	33	27	39	32	26	37	30	25	35	29	25
9	52	39	30	25	50	38	30	24	36	29	24	34	27	23	32	26	22
10	49	36	28	22	47	35	27	22	33	26	21	31	25	21	30	24	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14326	14326	14326
5°	14422	14234	14337
10°	14357	14251	14399
15°	14185	14228	14400
20°	13963	14162	14404
25°	13744	14111	14455
30°	13425	14049	14504
35°	13104	14016	14750
40°	12764	14093	15041
45°	12449	14269	15473
50°	12111	14566	16019
55°	11762	14950	16721
60°	11334	15487	17646
65°	10907	16211	18862
70°	10441	17360	20697
75°	9865	19492	23981
80°	8970	24029	30729
85°	8572	38594	51925

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 95188 cd/sqm

TEST NUMBER: P987549

CATALOG NUMBER: S122DR-B865DB2750-4F0-XX-W2A-D_4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.8	2.5
10°-20°	246.0	7.1
20°-30°	372.8	10.8
30°-40°	454.0	13.1
40°-50°	488.4	14.1
50°-60°	474.4	13.7
60°-70°	414.3	12.0
70°-80°	318.8	9.2
80°-90°	213.5	6.2
90°-100°	147.3	4.3
100°-110°	107.6	3.1
110°-120°	71.0	2.1
120°-130°	39.6	1.1
130°-140°	16.6	0.5
140°-150°	2.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	704.6	20.4
0°-40°	1158.6	33.6
0°-60°	2121.4	61.4
0°-90°	3068.1	88.9
90°-120°	325.9	9.4
90°-150°	384.9	11.1
90°-180°	385.0	11.1
0°-180°	3453.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	905	905	905	905	905	
5°	908	904	896	904	902	86
15°	866	868	868	880	879	244
25°	787	796	808	824	828	362
35°	678	700	725	754	763	424
45°	556	592	637	678	691	429
55°	426	474	542	589	606	381
65°	291	355	433	487	504	289
75°	161	235	319	375	392	171
85°	47	128	212	268	286	50
90°	13	89	173	226	241	9
95°	10	72	151	201	216	8
105°	7	45	113	159	173	7
115°	5	20	79	118	132	5
125°	3	3	45	80	92	3
135°	1	1	14	42	52	1
145°	0	0	0	8	14	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: P987549

CATALOG NUMBER: S122DR-B865DB2750-4F0-XX-W2A-D_4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	905.0	905.0	905.0	905.0	905.0
2.5°	911.5	907.6	898.4	905.0	902.3
5°	907.6	903.6	895.8	903.6	902.3
7.5°	901.0	898.4	891.8	901.0	899.7
10°	893.2	890.5	886.6	897.1	895.8
12.5°	880.0	881.3	878.7	889.2	887.9
15°	865.6	868.2	868.2	880.0	878.7
17.5°	847.2	852.5	856.4	868.2	868.2
20°	828.9	835.4	840.7	855.1	855.1
22.5°	809.2	817.1	825.0	839.4	842.0
25°	786.9	796.1	807.9	823.6	827.6
27.5°	760.7	775.1	788.2	807.9	810.5
30°	734.5	751.5	768.6	789.5	793.5
32.5°	705.6	725.3	746.3	771.2	779.1
35°	678.1	700.4	725.3	754.1	763.3
37.5°	647.9	672.8	704.3	735.8	745.0
40°	617.7	646.6	682.0	716.1	727.9
42.5°	588.9	617.7	659.7	697.7	709.5
45°	556.1	591.5	637.4	678.1	691.2
47.5°	524.6	562.6	615.1	657.1	671.5
50°	491.8	532.5	591.5	636.1	650.5
52.5°	460.3	503.6	566.6	612.5	628.2
55°	426.2	473.5	541.7	588.9	605.9
57.5°	393.5	445.9	514.1	565.3	582.3
60°	358.0	414.4	489.2	539.0	557.4
62.5°	326.6	385.6	460.3	514.1	531.2
65°	291.2	355.4	432.8	486.6	503.6
67.5°	259.7	326.6	405.3	459.0	477.4
70°	225.6	293.8	375.1	431.5	447.2
72.5°	194.1	264.9	347.6	402.6	422.3
75°	161.3	234.8	318.7	375.1	392.1
77.5°	129.8	205.9	291.2	347.6	365.9
80°	98.4	178.4	263.6	318.7	337.1
82.5°	72.1	150.8	237.4	292.5	309.5
85°	47.2	128.5	212.5	267.6	285.9
87.5°	28.9	107.5	191.5	245.3	262.3
90°	13.1	89.2	173.1	225.6	241.3
92.5°	11.8	81.3	161.3	212.5	228.2
95°	10.5	72.1	150.8	200.7	216.4
97.5°	9.2	65.6	141.6	190.2	205.9
100°	9.2	57.7	131.2	179.7	194.1
102.5°	7.9	51.1	122.0	169.2	183.6
105°	6.6	44.6	112.8	158.7	173.1
107.5°	6.6	38.0	103.6	148.2	162.6
110°	5.2	31.5	95.7	137.7	152.1



TEST NUMBER: P987549

CATALOG NUMBER: S122DR-B865DB2750-4F0-XX-W2A-D_4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.2	26.2	86.6	128.5	143.0
115°	5.2	19.7	78.7	118.0	132.5
117.5°	3.9	14.4	69.5	108.9	122.0
120°	3.9	9.2	61.6	98.4	112.8
122.5°	3.9	5.2	53.8	89.2	101.0
125°	2.6	2.6	44.6	80.0	91.8
127.5°	2.6	1.3	36.7	69.5	81.3
130°	2.6	1.3	28.9	60.3	70.8
132.5°	2.6	1.3	21.0	51.1	61.6
135°	1.3	1.3	14.4	42.0	52.5
137.5°	1.3	1.3	7.9	32.8	42.0
140°	1.3	0.0	2.6	23.6	31.5
142.5°	1.3	0.0	0.0	15.7	22.3
145°	0.0	0.0	0.0	7.9	14.4
147.5°	0.0	0.0	0.0	1.3	5.2
150°	0.0	0.0	0.0	0.0	0.0
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)