

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: P998459

Luminaire Tested: S124DR-B1195DB2750-4F0-XX-W2A-D_3500K

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998459
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-16)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DR-B1195DB2750-4F0-XX-W2A-D_3500K
Description: Define 4 Direct Recessed with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}
Light Source: -
Ballast/Driver: -

Summary

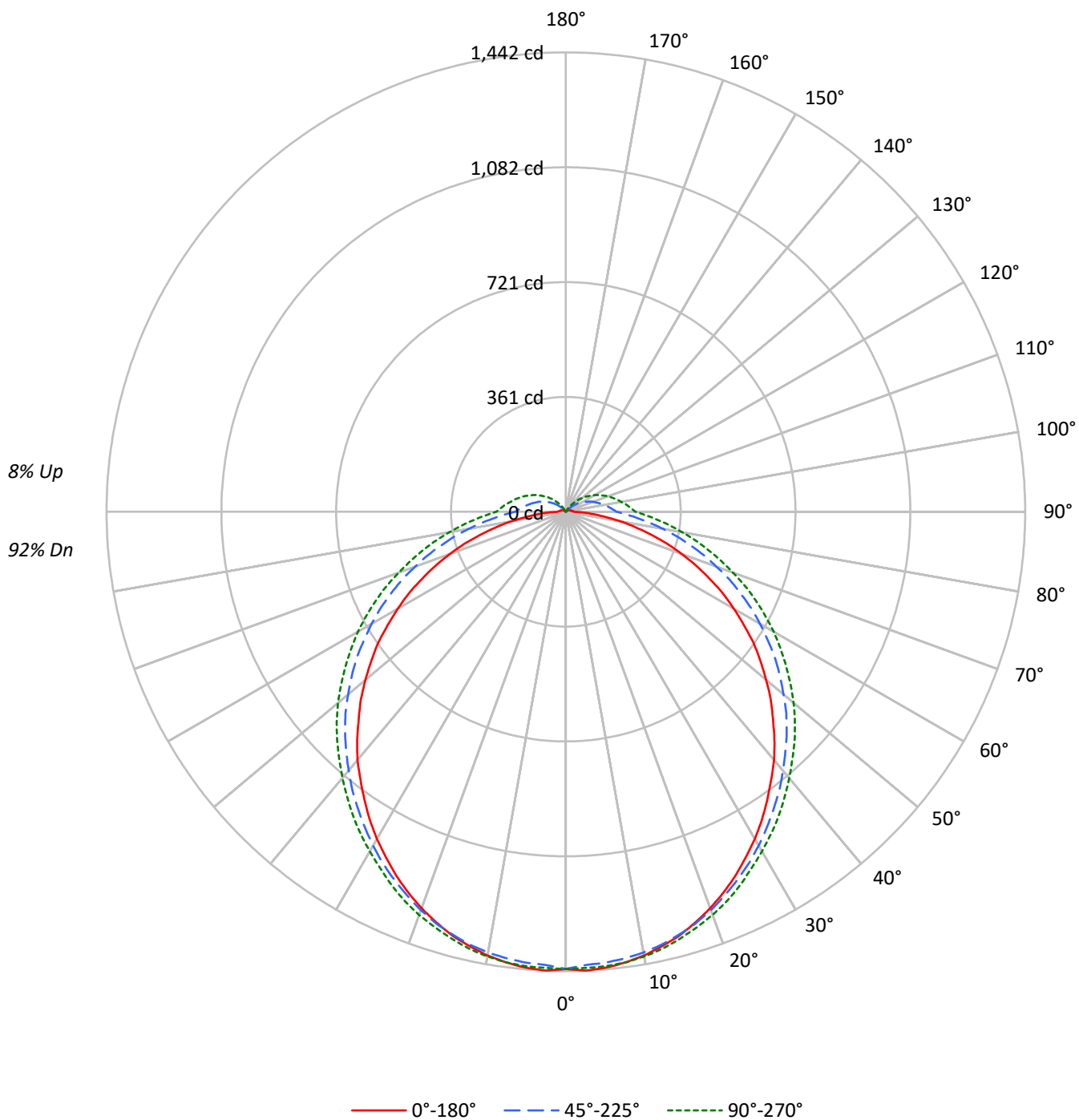
Lumens per Lamp: N/A
Luminaire Lumens: 4893.0 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 61.3
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: P998459

CATALOG NUMBER: S124DR-B1195DB2750-4F0-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			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	95	95	92
1	105	100	95	91	102	97	93	89	91	88	84	86	83	80	81	79	77	77	77	74
2	95	86	79	73	92	84	77	71	79	73	68	74	70	66	70	67	63	63	63	60
3	87	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	53	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	47	55	49	45	45	45	43
5	73	59	50	43	70	58	49	42	55	47	41	52	45	40	49	44	39	39	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	45	39	34	34	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	30	30	28
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	27	27	25
9	54	40	32	26	52	39	31	26	38	30	25	36	29	25	34	29	24	24	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	23	32	26	22	22	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11702	11702	11702
5°	11761	11629	11721
10°	11711	11630	11737
15°	11627	11600	11708
20°	11492	11548	11687
25°	11337	11466	11640
30°	11167	11395	11591
35°	10975	11327	11599
40°	10829	11291	11616
45°	10602	11305	11713
50°	10418	11315	11845
55°	10236	11401	11995
60°	9934	11480	12292
65°	9613	11660	12683
70°	9234	11993	13297
75°	8708	12710	14581
80°	8227	14567	17431
85°	7971	21051	27068

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 46867 cd/sqm

TEST NUMBER: P998459

CATALOG NUMBER: S124DR-B1195DB2750-4F0-XX-W2A-D_3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.0	2.8
10°-20°	389.6	8.0
20°-30°	589.1	12.0
30°-40°	712.7	14.6
40°-50°	753.4	15.4
50°-60°	709.1	14.5
60°-70°	588.4	12.0
70°-80°	412.9	8.4
80°-90°	232.8	4.8
90°-100°	138.6	2.8
100°-110°	102.6	2.1
110°-120°	68.9	1.4
120°-130°	38.8	0.8
130°-140°	16.8	0.3
140°-150°	3.3	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1114.7	22.8
0°-40°	1827.4	37.3
0°-60°	3289.9	67.2
0°-90°	4524.0	92.5
90°-120°	310.1	6.3
90°-150°	369.0	7.5
90°-180°	369.0	7.5
0°-180°	4893.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1435	1435	1435	1435	1435	
5°	1437	1432	1421	1434	1432	136
15°	1377	1379	1374	1388	1387	388
25°	1260	1270	1274	1292	1294	580
35°	1102	1122	1138	1160	1165	690
45°	919	950	980	1008	1016	710
55°	720	754	802	834	844	642
65°	498	550	604	644	657	494
75°	276	336	403	448	463	294
85°	85	153	225	273	289	89
90°	26	90	159	206	219	18
95°	21	74	140	183	198	17
105°	14	47	106	146	159	16
115°	10	24	76	111	122	10
125°	6	5	45	76	85	6
135°	3	3	14	40	50	3
145°	2	0	0	10	16	1
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: P998459

CATALOG NUMBER: S124DR-B1195DB2750-4F0-XX-W2A-D_3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1435.1	1435.1	1435.1	1435.1	1435.1
2.5°	1441.6	1436.8	1423.9	1435.1	1433.5
5°	1436.8	1431.9	1420.7	1433.5	1431.9
7.5°	1427.1	1423.9	1414.3	1428.7	1427.1
10°	1414.3	1412.6	1404.6	1419.1	1417.5
12.5°	1396.6	1396.6	1391.8	1404.6	1404.6
15°	1377.3	1378.9	1374.1	1388.5	1386.9
17.5°	1351.6	1356.4	1354.8	1369.3	1367.6
20°	1324.3	1329.1	1330.7	1346.8	1346.8
22.5°	1293.7	1300.1	1303.4	1319.4	1322.6
25°	1260.0	1269.6	1274.4	1292.1	1293.7
27.5°	1223.0	1237.5	1243.9	1260.0	1261.6
30°	1186.0	1198.9	1210.2	1227.8	1231.0
32.5°	1145.9	1161.9	1174.8	1195.7	1198.9
35°	1102.5	1121.8	1137.8	1160.3	1165.2
37.5°	1059.1	1081.6	1100.9	1123.4	1128.2
40°	1017.3	1038.2	1060.7	1084.8	1091.2
42.5°	969.1	993.2	1020.5	1047.8	1052.7
45°	919.3	949.8	980.3	1007.7	1015.7
47.5°	872.7	903.2	938.5	965.9	975.5
50°	821.2	856.6	891.9	924.1	933.7
52.5°	769.8	805.2	846.9	879.1	888.7
55°	720.0	753.7	801.9	834.1	843.7
57.5°	663.7	705.5	752.1	790.7	798.7
60°	609.1	650.9	703.9	740.9	753.7
62.5°	556.1	602.7	655.7	692.7	705.5
65°	498.2	549.6	604.3	644.4	657.3
67.5°	443.6	498.2	556.1	596.2	609.1
70°	387.3	442.0	503.0	546.4	557.7
72.5°	332.7	388.9	454.8	496.6	509.5
75°	276.4	335.9	403.4	448.4	462.8
77.5°	223.4	286.1	356.8	401.8	417.8
80°	175.2	239.5	310.2	358.4	371.2
82.5°	127.0	194.5	265.2	315.0	329.5
85°	85.2	152.7	225.0	273.2	289.3
87.5°	53.0	118.9	189.6	236.2	250.7
90°	25.7	90.0	159.1	205.7	218.6
92.5°	24.1	80.4	149.5	194.5	207.3
95°	20.9	73.9	139.8	183.2	197.7
97.5°	19.3	65.9	131.8	173.6	188.0
100°	17.7	59.5	122.1	165.5	176.8
102.5°	17.7	53.0	114.1	155.9	168.7
105°	14.5	46.6	106.1	146.2	159.1
107.5°	14.5	41.8	98.0	138.2	149.5
110°	12.9	35.4	91.6	128.6	141.4



TEST NUMBER: P998459

CATALOG NUMBER: S124DR-B1195DB2750-4F0-XX-W2A-D_3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	11.2	30.5	83.6	118.9	131.8
115°	9.6	24.1	75.5	110.9	122.1
117.5°	9.6	19.3	67.5	101.2	114.1
120°	8.0	12.9	59.5	91.6	104.5
122.5°	8.0	8.0	51.4	83.6	94.8
125°	6.4	4.8	45.0	75.5	85.2
127.5°	6.4	4.8	37.0	65.9	77.1
130°	4.8	3.2	28.9	57.9	67.5
132.5°	4.8	3.2	22.5	49.8	59.5
135°	3.2	3.2	14.5	40.2	49.8
137.5°	3.2	1.6	8.0	32.1	40.2
140°	3.2	1.6	3.2	24.1	32.1
142.5°	1.6	1.6	0.0	17.7	24.1
145°	1.6	0.0	0.0	9.6	16.1
147.5°	1.6	0.0	0.0	1.6	8.0
150°	1.6	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)