

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: P998468

Luminaire Tested: S124DR-B1195DB30-4F0-XX-W2A-D

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998468
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-B1195DB30-4F0-XX-W2A-D
Description: Define 4 Direct Recessed with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}
Light Source: -
Ballast/Driver: -

Summary

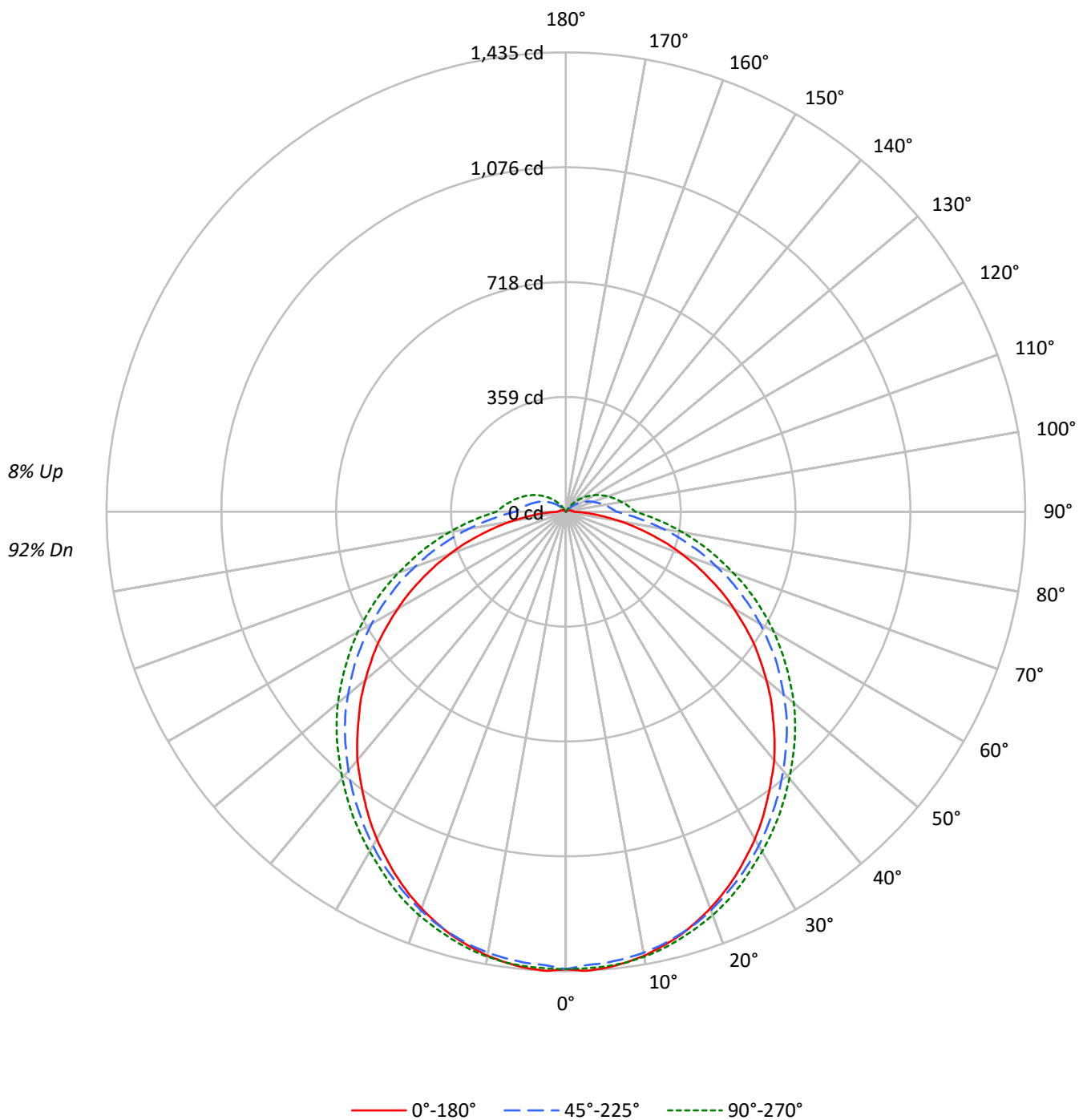
Lumens per Lamp: N/A
Luminaire Lumens: 4872.0 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11653	11653	11653
5°	11710	11579	11671
10°	11660	11581	11687
15°	11578	11551	11659
20°	11443	11498	11637
25°	11288	11418	11591
30°	11120	11346	11542
35°	10927	11278	11550
40°	10782	11242	11566
45°	10555	11257	11662
50°	10373	11267	11794
55°	10192	11352	11944
60°	9891	11431	12240
65°	9572	11610	12629
70°	9196	11943	13240
75°	8671	12656	14521
80°	8190	14501	17356
85°	7934	20958	26946

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 87.5°

Luminance: 46662 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.4	2.8
10°-20°	387.9	8.0
20°-30°	586.6	12.0
30°-40°	709.6	14.6
40°-50°	750.2	15.4
50°-60°	706.0	14.5
60°-70°	585.9	12.0
70°-80°	411.1	8.4
80°-90°	231.8	4.8
90°-100°	138.0	2.8
100°-110°	102.2	2.1
110°-120°	68.6	1.4
120°-130°	38.6	0.8
130°-140°	16.7	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°	1109.9	22.8
0°-40°	1819.6	37.3
0°-60°	3275.8	67.2
0°-90°	4504.6	92.5
90°-120°	308.7	6.3
90°-150°	367.3	7.5
90°-180°	367.0	7.5
0°-180°	4872.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1429	1429	1429	1429	1429	
5°	1431	1426	1415	1427	1426	136
15°	1371	1373	1368	1383	1381	386
25°	1255	1264	1269	1287	1288	578
35°	1098	1117	1133	1155	1160	687
45°	915	946	976	1003	1011	707
55°	717	750	798	830	840	639
65°	496	547	602	642	654	492
75°	275	334	402	446	461	292
85°	85	152	224	272	288	88
90°	26	90	158	205	218	18
95°	21	74	139	182	197	17
105°	14	46	106	146	158	16
115°	10	24	75	110	122	10
125°	6	5	45	75	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

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1429.0	1429.0	1429.0	1429.0	1429.0
2.5°	1435.4	1430.6	1417.8	1429.0	1427.4
5°	1430.6	1425.8	1414.6	1427.4	1425.8
7.5°	1421.0	1417.8	1408.2	1422.6	1421.0
10°	1408.2	1406.6	1398.6	1413.0	1411.4
12.5°	1390.6	1390.6	1385.8	1398.6	1398.6
15°	1371.4	1373.0	1368.2	1382.6	1381.0
17.5°	1345.8	1350.6	1349.0	1363.4	1361.8
20°	1318.6	1323.4	1325.0	1341.0	1341.0
22.5°	1288.2	1294.6	1297.8	1313.8	1317.0
25°	1254.6	1264.2	1269.0	1286.6	1288.2
27.5°	1217.8	1232.2	1238.6	1254.6	1256.2
30°	1181.0	1193.8	1205.0	1222.6	1225.8
32.5°	1140.9	1157.0	1169.8	1190.6	1193.8
35°	1097.7	1116.9	1132.9	1155.4	1160.2
37.5°	1054.5	1076.9	1096.1	1118.5	1123.3
40°	1012.9	1033.7	1056.1	1080.1	1086.5
42.5°	964.9	988.9	1016.1	1043.3	1048.1
45°	915.3	945.7	976.1	1003.3	1011.3
47.5°	868.9	899.3	934.5	961.7	971.3
50°	817.7	852.9	888.1	920.1	929.7
52.5°	766.5	801.7	843.3	875.3	884.9
55°	716.9	750.5	798.5	830.5	840.1
57.5°	660.9	702.5	748.9	787.3	795.3
60°	606.5	648.1	700.9	737.7	750.5
62.5°	553.7	600.1	652.9	689.7	702.5
65°	496.1	547.3	601.7	641.7	654.5
67.5°	441.7	496.1	553.7	593.7	606.5
70°	385.7	440.1	500.9	544.1	555.3
72.5°	331.2	387.3	452.9	494.5	507.3
75°	275.2	334.4	401.7	446.5	460.9
77.5°	222.4	284.8	355.2	400.1	416.1
80°	174.4	238.4	308.8	356.8	369.6
82.5°	126.4	193.6	264.0	313.6	328.0
85°	84.8	152.0	224.0	272.0	288.0
87.5°	52.8	118.4	188.8	235.2	249.6
90°	25.6	89.6	158.4	204.8	217.6
92.5°	24.0	80.0	148.8	193.6	206.4
95°	20.8	73.6	139.2	182.4	196.8
97.5°	19.2	65.6	131.2	172.8	187.2
100°	17.6	59.2	121.6	164.8	176.0
102.5°	17.6	52.8	113.6	155.2	168.0
105°	14.4	46.4	105.6	145.6	158.4
107.5°	14.4	41.6	97.6	137.6	148.8
110°	12.8	35.2	91.2	128.0	140.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	11.2	30.4	83.2	118.4	131.2
115°	9.6	24.0	75.2	110.4	121.6
117.5°	9.6	19.2	67.2	100.8	113.6
120°	8.0	12.8	59.2	91.2	104.0
122.5°	8.0	8.0	51.2	83.2	94.4
125°	6.4	4.8	44.8	75.2	84.8
127.5°	6.4	4.8	36.8	65.6	76.8
130°	4.8	3.2	28.8	57.6	67.2
132.5°	4.8	3.2	22.4	49.6	59.2
135°	3.2	3.2	14.4	40.0	49.6
137.5°	3.2	1.6	8.0	32.0	40.0
140°	3.2	1.6	3.2	24.0	32.0
142.5°	1.6	1.6	0.0	17.6	24.0
145°	1.6	0.0	0.0	9.6	16.0
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)