

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: P998720

Luminaire Tested: S124R3DR-B1020DB27-4F0-XX-W2A-F

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998720
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)
Test Lab: INNOVATION CENTER
Issue Date: 5/2/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-B1020DB27-4F0-XX-W2A-F
Description: Define 4 3in Regressed Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}
Light Source: -
Ballast/Driver: -

Summary

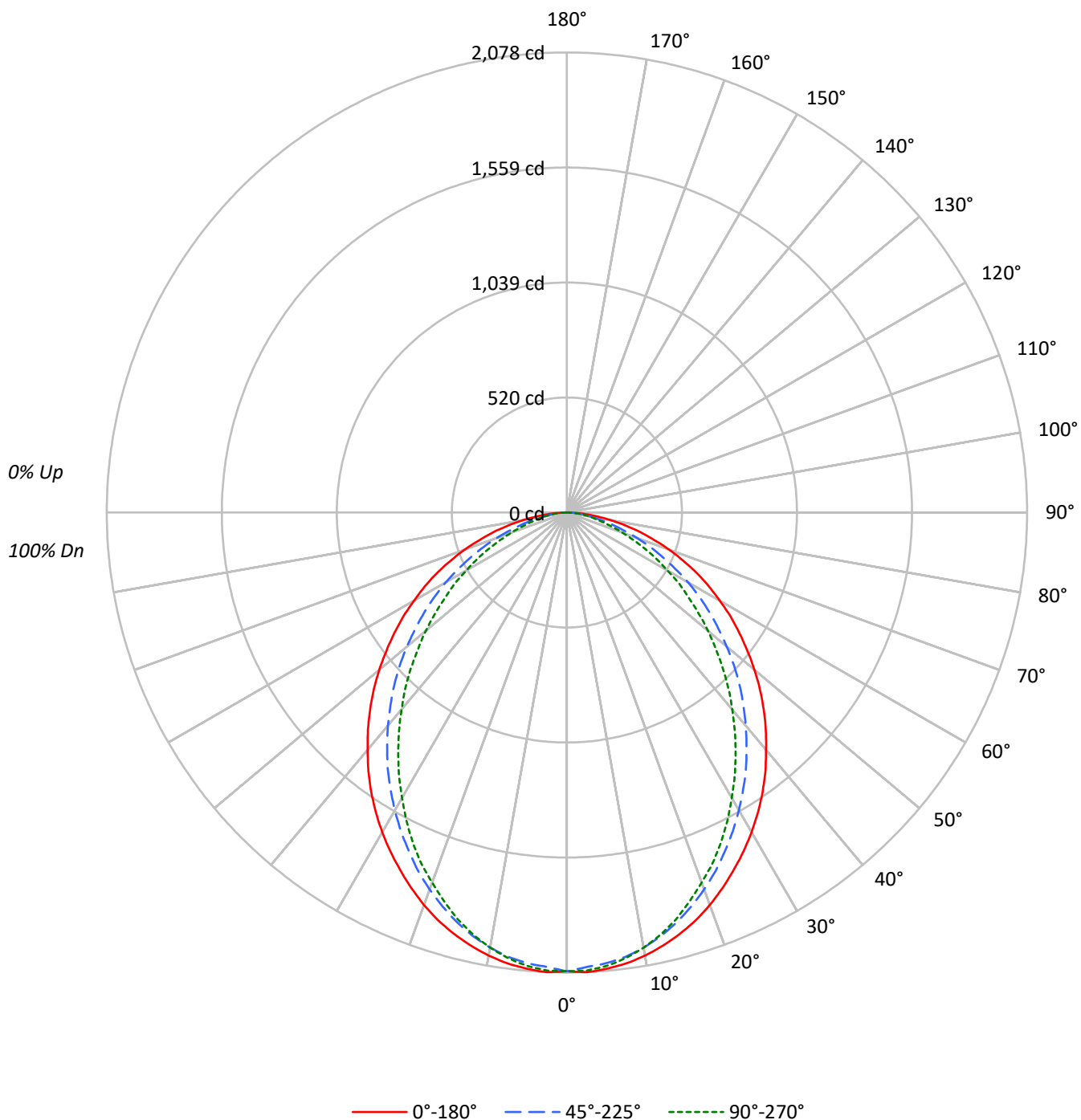
Lumens per Lamp: N/A
Luminaire Lumens: 4788.0 lumens
Efficiency: N/A
Efficacy: 78.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

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: P998720

CATALOG NUMBER: S124R3DR-B1020DB27-4F0-XX-W2A-F

Luminous Intensity Polar Plot



TEST NUMBER: P998720

CATALOG NUMBER: S124R3DR-B1020DB27-4F0-XX-W2A-F

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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	110	105	101	98	107	103	99	96	99	96	93		95	92	90		91	89	87	85
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81	78	74	72
3	92	82	74	68	89	80	73	67	77	71	66		75	69	65		72	68	64	62
4	84	73	65	58	82	72	64	58	69	62	57		67	61	56		65	60	56	54
5	78	66	57	51	76	65	56	50	62	55	50		61	54	49		59	53	49	47
6	72	59	51	45	70	58	50	44	57	49	44		55	49	44		53	48	43	41
7	67	54	46	40	65	53	45	40	52	45	39		50	44	39		49	43	39	37
8	63	50	41	36	61	49	41	36	48	40	35		46	40	35		45	39	35	33
9	59	46	38	32	57	45	37	32	44	37	32		43	36	32		42	36	32	30
10	55	42	35	29	54	42	34	29	41	34	29		40	33	29		39	33	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16898	16898	16898
5°	16936	16728	16832
10°	16830	16527	16527
15°	16636	16181	16060
20°	16371	15724	15435
25°	16032	15190	14804
30°	15702	14626	14014
35°	15337	14041	13220
40°	14896	13376	12363
45°	14491	12717	11491
50°	14030	11957	10568
55°	13534	11166	9564
60°	12990	10299	8539
65°	12492	9215	7531
70°	11766	8020	6392
75°	10848	6648	5199
80°	9462	5067	4766
85°	8018	4603	4304

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14491 cd/sqm

TEST NUMBER: P998720

CATALOG NUMBER: S124R3DR-B1020DB27-4F0-XX-W2A-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.9	4.1
10°-20°	543.3	11.3
20°-30°	784.4	16.4
30°-40°	889.0	18.6
40°-50°	858.3	17.9
50°-60°	713.6	14.9
60°-70°	492.5	10.3
70°-80°	248.9	5.2
80°-90°	63.2	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1522.5	31.8
0°-40°	2411.5	50.4
0°-60°	3983.4	83.2
0°-90°	4788.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4788.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2072	2072	2072	2072	2072	
5°	2069	2063	2044	2060	2056	196
15°	1971	1956	1917	1914	1902	555
25°	1782	1753	1688	1661	1645	821
35°	1541	1490	1410	1357	1328	963
45°	1257	1198	1103	1025	996	969
55°	952	888	785	703	673	852
65°	647	579	478	409	390	639
75°	344	286	211	174	165	363
85°	86	54	49	46	46	99
90°	0	0	0	0	0	

TEST NUMBER: P998720

CATALOG NUMBER: S124R3DR-B1020DB27-4F0-XX-W2A-F

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2072.2	2072.2	2072.2	2072.2	2072.2
2.5°	2078.5	2072.2	2054.7	2072.2	2070.6
5°	2069.0	2062.7	2043.6	2059.5	2056.3
7.5°	2054.7	2048.4	2024.6	2035.7	2030.9
10°	2032.5	2024.6	1996.0	2002.4	1996.0
12.5°	2004.0	1994.4	1959.5	1962.7	1953.2
15°	1970.6	1956.4	1916.7	1913.5	1902.4
17.5°	1932.6	1911.9	1865.9	1858.0	1842.1
20°	1886.5	1865.9	1812.0	1799.3	1778.7
22.5°	1835.8	1812.0	1753.3	1732.6	1716.8
25°	1781.8	1753.3	1688.2	1661.2	1645.4
27.5°	1726.3	1691.4	1623.2	1591.4	1569.2
30°	1667.6	1627.9	1553.3	1513.7	1488.3
32.5°	1605.7	1559.7	1481.9	1434.3	1410.5
35°	1540.7	1489.9	1410.5	1356.6	1328.0
37.5°	1472.4	1420.1	1332.8	1274.1	1245.5
40°	1399.4	1347.1	1256.6	1190.0	1161.4
42.5°	1329.6	1274.1	1178.9	1110.7	1080.5
45°	1256.6	1197.9	1102.7	1025.0	996.4
47.5°	1182.1	1121.8	1023.4	942.5	910.7
50°	1105.9	1044.0	942.5	863.1	833.0
52.5°	1028.2	967.9	863.1	782.2	750.5
55°	952.0	888.5	785.4	702.9	672.7
57.5°	877.4	810.8	709.2	625.1	602.9
60°	796.5	733.0	631.5	549.0	523.6
62.5°	723.5	656.9	552.2	477.6	458.5
65°	647.4	579.1	477.6	409.4	390.3
67.5°	568.0	503.0	407.8	347.5	325.3
70°	493.5	426.8	336.4	284.0	268.1
72.5°	414.1	355.4	271.3	228.5	214.2
75°	344.3	285.6	211.0	174.5	165.0
77.5°	271.3	220.5	157.1	131.7	128.5
80°	201.5	155.5	107.9	103.1	101.5
82.5°	141.2	100.0	77.7	74.6	73.0
85°	85.7	53.9	49.2	46.0	46.0
87.5°	36.5	23.8	22.2	20.6	22.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)