

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: P998736

Luminaire Tested: S124R3DR-B1020DB40-4F0-XX-W2A-F

Issue Date: 5/2/2025

Test Information

Test Method: LM-79-2019
Report Number: P998736
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-B1020DB40-4F0-XX-W2A-F
Description: Define 4 3in Regressed Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951
Light Source: -
Ballast/Driver: -

Summary

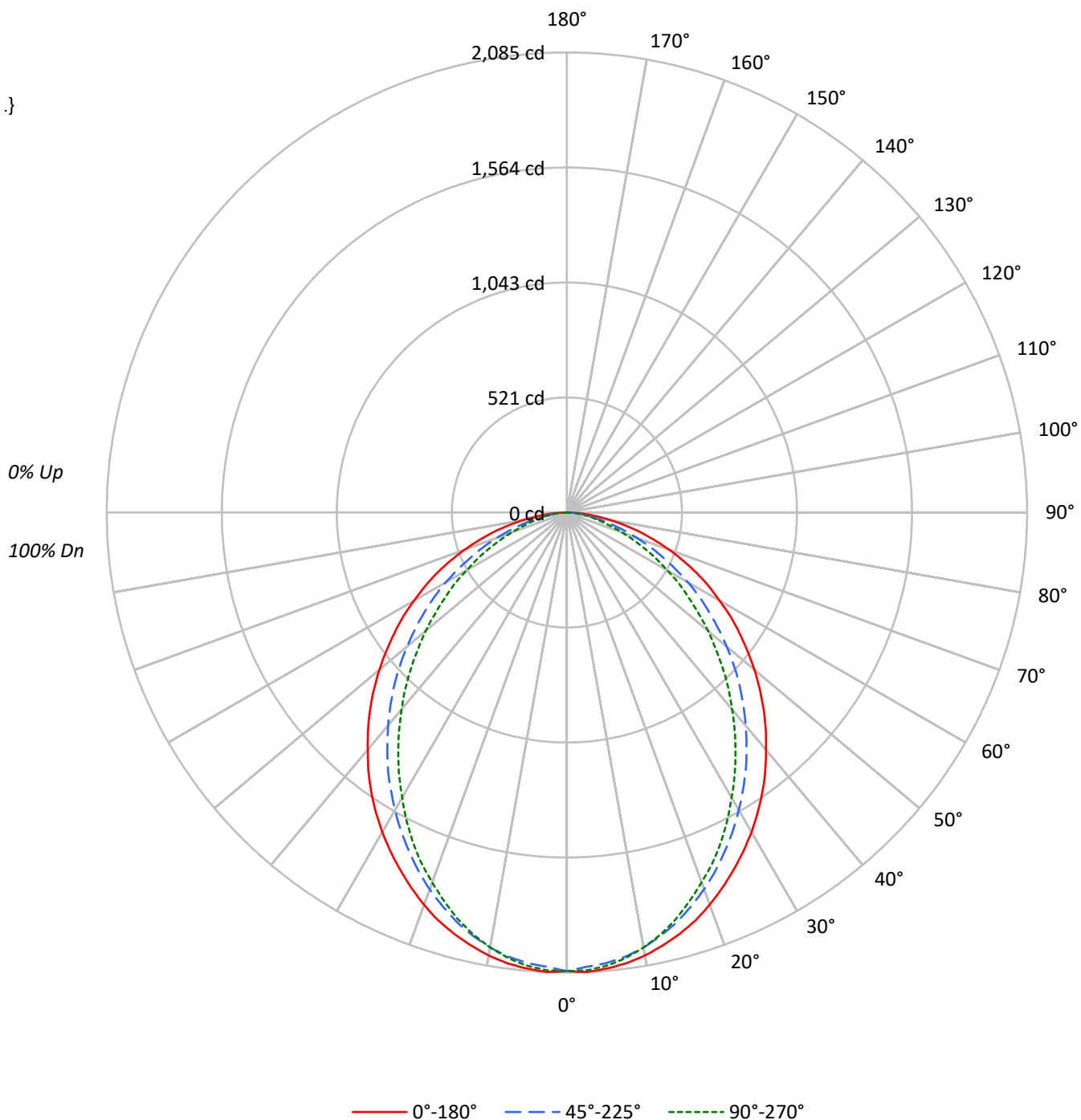
Lumens per Lamp: N/A
Luminaire Lumens: 4802.0 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Direct

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

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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			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°	16947	16947	16947
5°	16986	16777	16881
10°	16879	16576	16576
15°	16685	16228	16108
20°	16419	15770	15480
25°	16078	15234	14848
30°	15748	14669	14054
35°	15382	14083	13259
40°	14940	13416	12399
45°	14534	12755	11524
50°	14070	11991	10598
55°	13574	11199	9592
60°	13028	10328	8564
65°	12528	9242	7554
70°	11799	8044	6411
75°	10879	6667	5214
80°	9491	5081	4781
85°	8037	4613	4313

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14534 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.4	4.1
10°-20°	544.9	11.3
20°-30°	786.7	16.4
30°-40°	891.6	18.6
40°-50°	860.8	17.9
50°-60°	715.7	14.9
60°-70°	494.0	10.3
70°-80°	249.6	5.2
80°-90°	63.4	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°	1527.0	31.8
0°-40°	2418.5	50.4
0°-60°	3995.0	83.2
0°-90°	4802.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4802.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2078	2078	2078	2078	2078	
5°	2075	2069	2050	2066	2062	197
15°	1976	1962	1922	1919	1908	557
25°	1787	1758	1693	1666	1650	823
35°	1545	1494	1415	1361	1332	966
45°	1260	1201	1106	1028	999	972
55°	955	891	788	705	675	854
65°	649	581	479	411	392	641
75°	345	286	212	175	166	364
85°	86	54	49	46	46	99
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2078.2	2078.2	2078.2	2078.2	2078.2
2.5°	2084.6	2078.2	2060.7	2078.2	2076.7
5°	2075.1	2068.7	2049.6	2065.5	2062.3
7.5°	2060.7	2054.4	2030.5	2041.6	2036.9
10°	2038.5	2030.5	2001.9	2008.2	2001.9
12.5°	2009.8	2000.3	1965.3	1968.4	1958.9
15°	1976.4	1962.1	1922.3	1919.1	1908.0
17.5°	1938.2	1917.5	1871.4	1863.4	1847.5
20°	1892.1	1871.4	1817.3	1804.5	1783.9
22.5°	1841.1	1817.3	1758.4	1737.7	1721.8
25°	1787.0	1758.4	1693.1	1666.1	1650.2
27.5°	1731.3	1696.3	1627.9	1596.1	1573.8
30°	1672.5	1632.7	1557.9	1518.1	1492.6
32.5°	1610.4	1564.3	1486.3	1438.5	1414.7
35°	1545.2	1494.2	1414.7	1360.6	1331.9
37.5°	1476.7	1424.2	1336.7	1277.8	1249.2
40°	1403.5	1351.0	1260.3	1193.5	1164.8
42.5°	1333.5	1277.8	1182.3	1113.9	1083.7
45°	1260.3	1201.4	1106.0	1028.0	999.3
47.5°	1185.5	1125.1	1026.4	945.2	913.4
50°	1109.1	1047.1	945.2	865.7	835.4
52.5°	1031.2	970.7	865.7	784.5	752.7
55°	954.8	891.1	787.7	704.9	674.7
57.5°	880.0	813.2	711.3	627.0	604.7
60°	798.8	735.2	633.3	550.6	525.1
62.5°	725.6	658.8	553.8	479.0	459.9
65°	649.3	580.8	479.0	410.6	391.5
67.5°	569.7	504.4	409.0	348.5	326.2
70°	494.9	428.1	337.4	284.8	268.9
72.5°	415.3	356.5	272.1	229.1	214.8
75°	345.3	286.4	211.6	175.0	165.5
77.5°	272.1	221.2	157.5	132.1	128.9
80°	202.1	155.9	108.2	103.4	101.8
82.5°	141.6	100.3	78.0	74.8	73.2
85°	85.9	54.1	49.3	46.1	46.1
87.5°	36.6	23.9	22.3	20.7	22.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)