

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: P1055979

Luminaire Tested: S124R3DR-S1020D950-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2019
Report Number: P1055979
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S1020D950-X4F0-XX-UDD-FLL-W
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

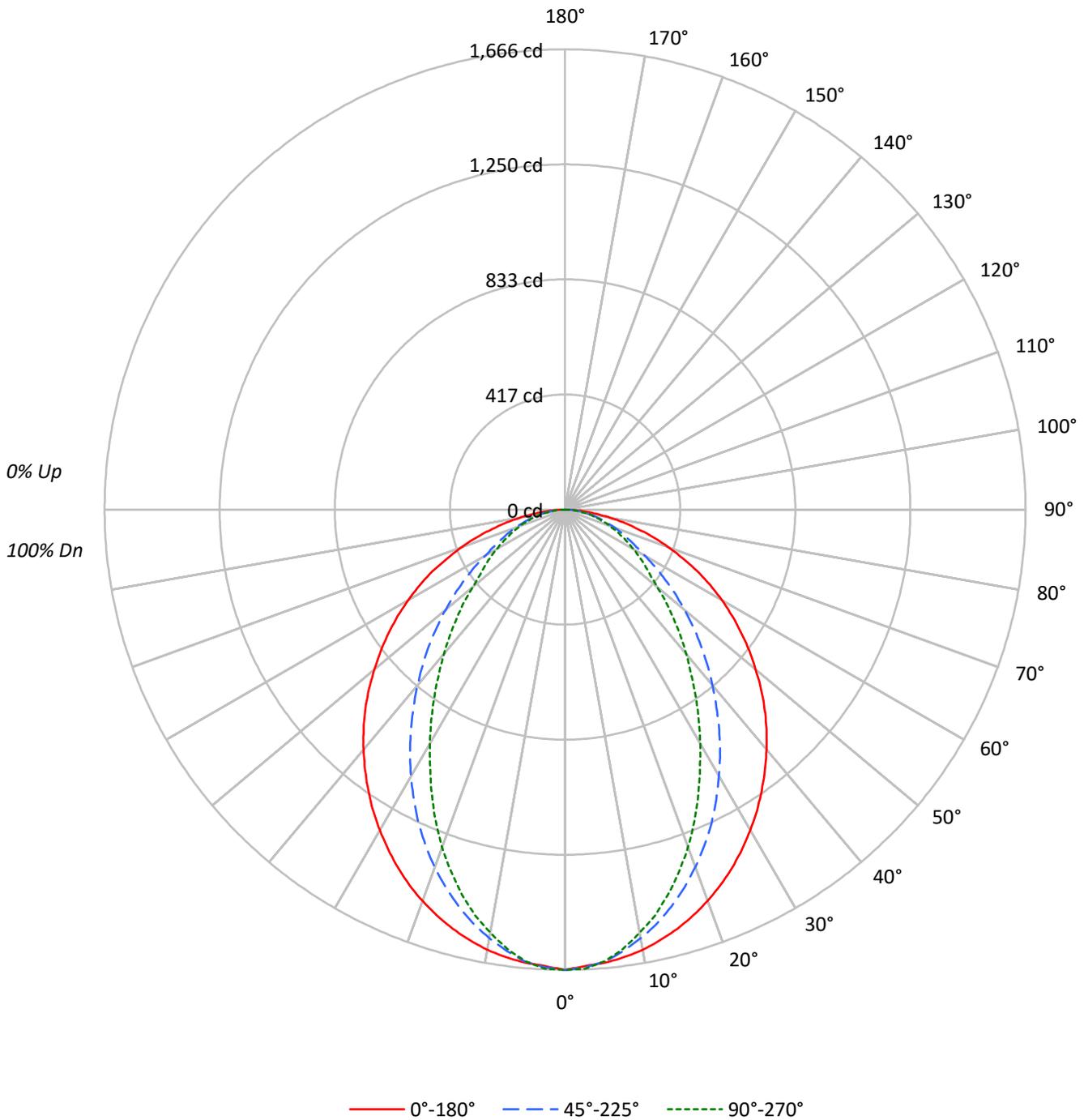
Lumens per Lamp: N/A
Luminaire Lumens: 3318.4 lumens
Efficiency: N/A
Efficacy: 95.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
Input Voltage (V): 120
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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73				73
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63				63
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55				55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49				49
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43				43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39				39
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35				35
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32				32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29				29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14731	14731	14731
5°	14613	14580	14569
10°	14529	14144	13967
15°	14374	13612	13196
20°	14188	12965	12238
25°	13957	12223	11122
30°	13680	11377	9988
35°	13391	10493	8892
40°	13088	9580	7867
45°	12769	8691	6913
50°	12378	7756	5970
55°	12000	6822	5423
60°	11577	5853	5029
65°	11054	5310	4692
70°	10268	4912	4436
75°	9298	4523	4188
80°	8116	4180	3931
85°	6218	3855	3611

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12769 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.1	4.7
10°-20°	420.8	12.7
20°-30°	582.6	17.6
30°-40°	625.3	18.8
40°-50°	568.7	17.1
50°-60°	447.8	13.5
60°-70°	306.5	9.2
70°-80°	165.0	5.0
80°-90°	46.7	1.4
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°	1158.4	34.9
0°-40°	1783.7	53.8
0°-60°	2800.2	84.4
0°-90°	3318.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3318.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1666	1666	1666	1666	1666	
5°	1646	1665	1643	1634	1642	156
15°	1570	1553	1487	1447	1442	443
25°	1431	1372	1253	1162	1140	659
35°	1241	1144	972	854	824	776
45°	1021	891	695	575	553	787
55°	778	630	443	357	352	696
65°	528	378	254	226	224	521
75°	272	166	132	121	123	291
85°	61	42	38	36	36	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1666.1	1666.1	1666.1	1666.1	1666.1
2.5°	1653.8	1673.4	1658.7	1661.2	1663.6
5°	1646.5	1664.8	1642.8	1634.2	1641.6
7.5°	1634.2	1646.5	1612.1	1596.2	1603.5
10°	1618.3	1620.7	1575.4	1552.1	1555.7
12.5°	1596.2	1590.1	1534.9	1501.8	1504.2
15°	1570.4	1553.3	1487.1	1446.6	1441.7
17.5°	1541.0	1512.8	1434.4	1382.9	1373.1
20°	1507.9	1469.9	1378.0	1311.8	1300.7
22.5°	1471.1	1422.1	1316.7	1238.2	1222.3
25°	1430.7	1371.8	1252.9	1162.2	1140.1
27.5°	1386.6	1317.9	1184.3	1085.0	1056.8
30°	1340.0	1261.5	1114.4	1007.7	978.3
32.5°	1292.2	1203.9	1043.3	930.5	899.9
35°	1240.7	1143.8	972.2	854.5	823.8
37.5°	1187.9	1081.3	899.9	780.9	749.1
40°	1134.0	1018.8	830.0	707.4	681.6
42.5°	1078.8	955.0	761.3	638.7	615.4
45°	1021.2	891.3	695.1	575.0	552.9
47.5°	962.4	826.3	627.7	514.9	494.1
50°	899.9	761.3	563.9	456.1	434.0
52.5°	839.8	695.1	502.6	398.4	387.4
55°	778.5	630.1	442.6	356.8	351.8
57.5°	717.2	565.2	387.4	323.7	318.7
60°	654.7	501.4	331.0	289.3	284.4
62.5°	592.1	438.9	289.3	256.2	253.8
65°	528.4	377.6	253.8	225.6	224.3
67.5°	461.0	318.7	221.9	198.6	197.4
70°	397.2	259.9	190.0	171.6	171.6
72.5°	337.1	206.0	160.6	145.9	145.9
75°	272.2	165.5	132.4	121.4	122.6
77.5°	214.5	130.0	106.7	99.3	99.3
80°	159.4	96.9	82.1	76.0	77.2
82.5°	107.9	67.4	58.8	55.2	55.2
85°	61.3	41.7	38.0	35.6	35.6
87.5°	22.1	19.6	18.4	15.9	17.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)