

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1056006

Luminaire Tested: S124R3DR-S1195D950-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056006
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-S1195D950-X4F0-XX-UDD-F-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

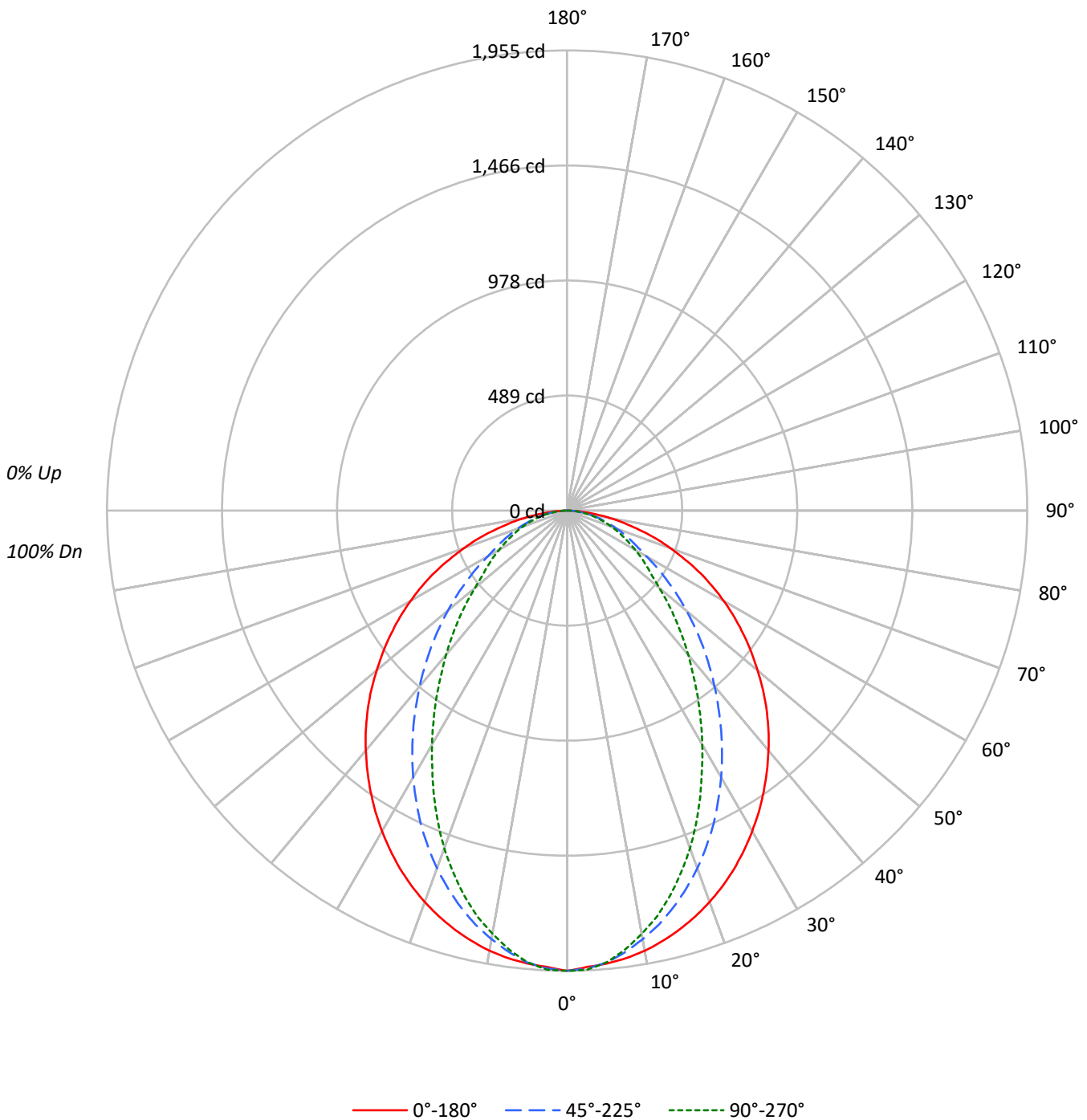
Lumens per Lamp: N/A
Luminaire Lumens: 3894.5 lumens
Efficiency: N/A
Efficacy: 92.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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	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	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88	86																												
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76	73																												
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65	63																												
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57	55																												
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49																												
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43																												
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39																												
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37	35																												
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32																												
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17288	17288	17288
5°	17149	17111	17098
10°	17051	16598	16392
15°	16870	15974	15487
20°	16651	15216	14363
25°	16380	14344	13054
30°	16055	13353	11721
35°	15715	12315	10436
40°	15361	11243	9233
45°	14986	10200	8114
50°	14526	9103	7005
55°	14083	8006	6365
60°	13586	6870	5903
65°	12973	6230	5508
70°	12051	5765	5206
75°	10911	5309	4916
80°	9521	4908	4613
85°	7294	4524	4230

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14986 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.0	4.7
10°-20°	493.8	12.7
20°-30°	683.7	17.6
30°-40°	733.9	18.8
40°-50°	667.4	17.1
50°-60°	525.5	13.5
60°-70°	359.7	9.2
70°-80°	193.6	5.0
80°-90°	54.8	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°	1359.6	34.9
0°-40°	2093.4	53.8
0°-60°	3286.3	84.4
0°-90°	3894.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3894.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1955	1955	1955	1955	1955	
5°	1932	1954	1928	1918	1926	183
15°	1843	1823	1745	1698	1692	520
25°	1679	1610	1470	1364	1338	773
35°	1456	1342	1141	1003	967	911
45°	1198	1046	816	675	649	924
55°	914	740	519	419	413	817
65°	620	443	298	265	263	612
75°	319	194	155	142	144	341
85°	72	49	45	42	42	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1955.3	1955.3	1955.3	1955.3	1955.3
2.5°	1940.9	1963.9	1946.7	1949.5	1952.4
5°	1932.3	1953.9	1928.0	1917.9	1926.5
7.5°	1917.9	1932.3	1892.0	1873.3	1881.9
10°	1899.2	1902.1	1848.8	1821.5	1825.8
12.5°	1873.3	1866.1	1801.4	1762.5	1765.4
15°	1843.1	1822.9	1745.2	1697.8	1692.0
17.5°	1808.5	1775.5	1683.4	1622.9	1611.4
20°	1769.7	1725.1	1617.2	1539.5	1526.5
22.5°	1726.5	1669.0	1545.3	1453.2	1434.5
25°	1679.1	1610.0	1470.4	1364.0	1338.1
27.5°	1627.3	1546.7	1389.9	1273.3	1240.2
30°	1572.6	1480.5	1307.9	1182.7	1148.1
32.5°	1516.5	1412.9	1224.4	1092.0	1056.1
35°	1456.0	1342.4	1141.0	1002.8	966.9
37.5°	1394.2	1269.0	1056.1	916.5	879.1
40°	1330.9	1195.6	974.1	830.2	800.0
42.5°	1266.1	1120.8	893.5	749.6	722.3
45°	1198.5	1046.0	815.8	674.8	648.9
47.5°	1129.4	969.7	736.7	604.3	579.8
50°	1056.1	893.5	661.8	535.2	509.3
52.5°	985.6	815.8	589.9	467.6	454.7
55°	913.6	739.5	519.4	418.7	412.9
57.5°	841.7	663.3	454.7	379.8	374.1
60°	768.3	588.5	388.5	339.6	333.8
62.5°	694.9	515.1	339.6	300.7	297.8
65°	620.1	443.1	297.8	264.7	263.3
67.5°	541.0	374.1	260.4	233.1	231.6
70°	466.2	305.0	223.0	201.4	201.4
72.5°	395.7	241.7	188.5	171.2	171.2
75°	319.4	194.2	155.4	142.4	143.9
77.5°	251.8	152.5	125.2	116.5	116.5
80°	187.0	113.7	96.4	89.2	90.6
82.5°	126.6	79.1	69.1	64.7	64.7
85°	71.9	48.9	44.6	41.7	41.7
87.5°	25.9	23.0	21.6	18.7	20.1
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	21.04	22.57	21.41	22.88	23.20	16.82	18.35	17.19	18.66	18.97
	3H	22.82	24.19	23.20	24.52	24.88	18.43	19.80	18.81	20.13	20.49
	4H	23.49	24.78	23.89	25.13	25.50	19.06	20.35	19.46	20.70	21.08
	6H	24.00	25.19	24.41	25.55	25.95	19.56	20.75	19.97	21.12	21.51
	8H	24.16	25.29	24.59	25.68	26.09	19.73	20.87	20.16	21.25	21.66
	12H	24.26	25.35	24.69	25.73	26.16	19.85	20.94	20.28	21.32	21.75
4H	2H	21.14	22.42	21.54	22.77	23.15	17.54	18.82	17.94	19.17	19.55
	3H	23.08	24.15	23.49	24.55	24.95	19.35	20.42	19.76	20.82	21.22
	4H	23.84	24.80	24.27	25.22	25.66	20.08	21.05	20.52	21.46	21.90
	6H	24.47	25.31	24.93	25.76	26.22	20.70	21.54	21.16	21.98	22.44
	8H	24.69	25.48	25.16	25.92	26.39	20.92	21.70	21.38	22.14	22.61
	12H	24.85	25.55	25.33	26.03	26.50	21.08	21.78	21.56	22.26	22.73
8H	4H	23.90	24.68	24.36	25.13	25.59	20.47	21.26	20.94	21.70	22.17
	6H	24.60	25.24	25.09	25.74	26.21	21.20	21.85	21.70	22.34	22.82
	8H	24.86	25.45	25.38	25.96	26.44	21.49	22.07	22.01	22.58	23.07
	12H	25.08	25.60	25.59	26.09	26.65	21.74	22.25	22.25	22.74	23.31
12H	4H	23.89	24.59	24.37	25.07	25.54	20.53	21.23	21.01	21.71	22.18
	6H	24.59	25.17	25.10	25.68	26.17	21.29	21.87	21.80	22.38	22.87
	8H	24.90	25.41	25.41	25.90	26.47	21.64	22.15	22.14	22.64	23.21