

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: P1055169

Luminaire Tested: S122R3DR-S1005D950-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055169
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S1005D950-X4F0-XX-UDD-F-W
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

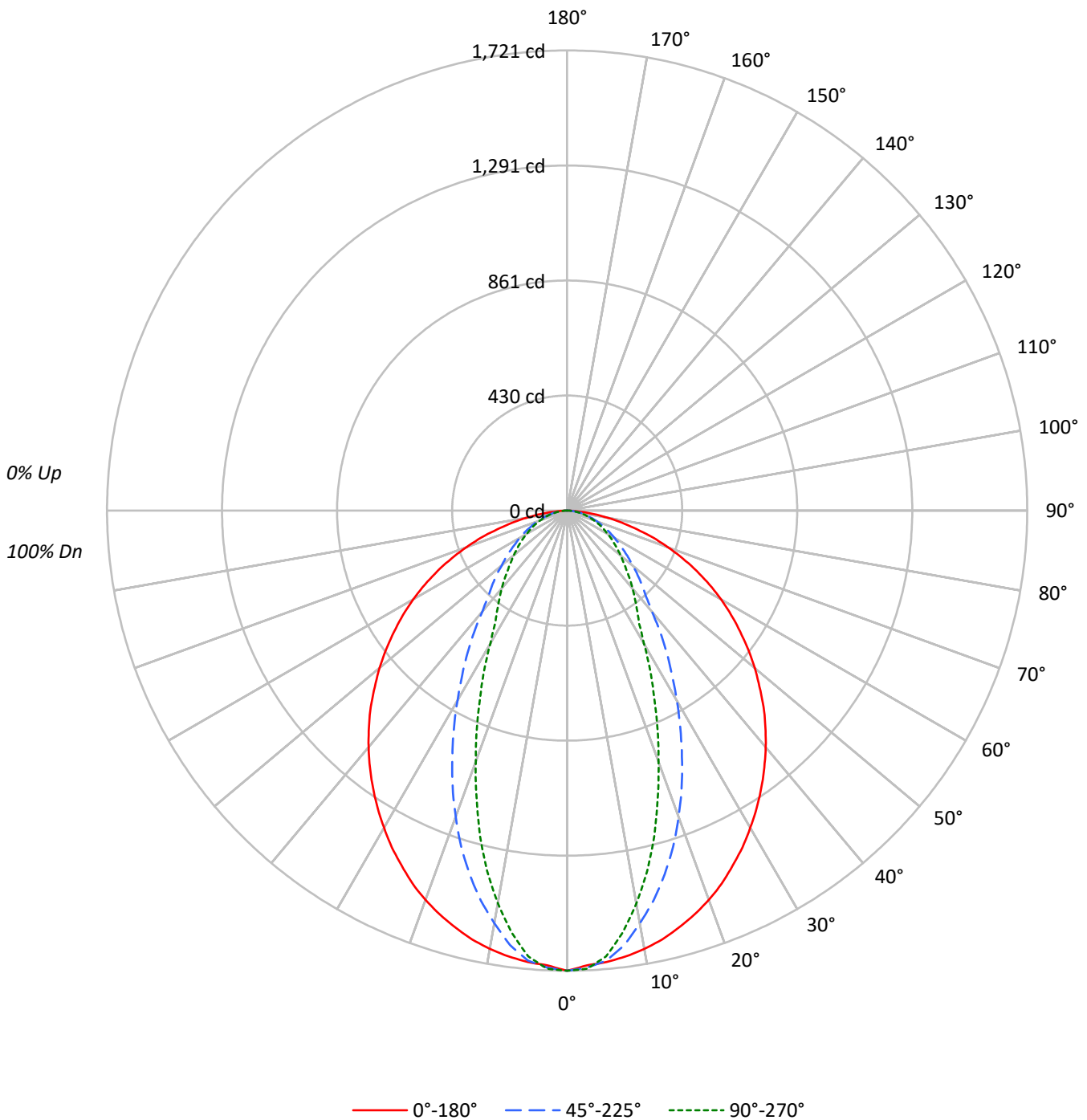
Lumens per Lamp: N/A
Luminaire Lumens: 2602.8 lumens
Efficiency: N/A
Efficacy: 62.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89					87				
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77					75				
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68					66				
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60					58				
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54					52				
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48					46				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44					42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40					38				
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37					35				
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34					32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	32602	32602	32602
5°	32234	32124	31823
10°	32026	30142	28703
15°	31663	27629	24692
20°	31243	24569	20162
25°	30619	21235	16090
30°	29965	17941	12559
35°	29283	15008	10549
40°	28573	12171	9393
45°	27833	10640	8405
50°	27013	9414	7675
55°	26091	8506	7128
60°	25187	7741	6650
65°	23993	7097	6258
70°	22235	6614	5899
75°	19698	6002	5585
80°	16791	5652	5182
85°	11565	5000	4695

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 27833 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.7	6.1
10°-20°	398.1	15.3
20°-30°	490.6	18.8
30°-40°	470.7	18.1
40°-50°	406.0	15.6
50°-60°	314.9	12.1
60°-70°	215.7	8.3
70°-80°	117.1	4.5
80°-90°	32.1	1.2
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°	1046.4	40.2
0°-40°	1517.0	58.3
0°-60°	2237.9	86.0
0°-90°	2602.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2602.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1721	1721	1721	1721	1721	
5°	1695	1719	1689	1668	1673	161
15°	1614	1565	1409	1294	1259	455
25°	1465	1308	1016	829	770	675
35°	1266	1004	649	483	456	792
45°	1039	699	397	328	314	801
55°	790	420	258	223	216	707
65°	535	229	158	144	140	528
75°	269	105	82	78	76	288
85°	53	26	23	23	22	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1720.8	1720.8	1720.8	1720.8	1720.8
2.5°	1702.1	1730.9	1710.7	1710.7	1715.0
5°	1694.9	1719.3	1689.1	1667.5	1673.3
7.5°	1681.9	1699.2	1638.8	1592.7	1591.3
10°	1664.7	1666.1	1566.8	1506.4	1492.0
12.5°	1643.1	1620.1	1493.5	1402.8	1381.2
15°	1614.3	1565.4	1408.6	1293.5	1258.9
17.5°	1584.1	1509.3	1317.9	1174.0	1126.6
20°	1549.6	1441.7	1218.6	1054.6	1000.0
22.5°	1510.7	1376.9	1119.4	939.5	882.0
25°	1464.7	1307.8	1015.8	828.7	769.7
27.5°	1420.1	1237.3	916.5	730.9	670.5
30°	1369.7	1161.1	820.1	637.4	574.1
32.5°	1319.4	1083.4	730.9	548.2	500.7
35°	1266.1	1004.3	648.9	483.4	456.1
37.5°	1211.5	926.6	571.2	440.3	415.8
40°	1155.3	848.9	492.1	398.5	379.8
42.5°	1097.8	772.6	437.4	364.0	346.7
45°	1038.8	699.2	397.1	328.0	313.7
47.5°	975.5	625.9	358.3	297.8	284.9
50°	916.5	555.4	319.4	270.5	260.4
52.5°	853.2	486.3	287.8	246.0	237.4
55°	789.9	420.1	257.5	223.0	215.8
57.5°	728.0	356.8	228.8	201.4	195.7
60°	664.7	306.5	204.3	181.3	175.5
62.5°	600.0	266.2	181.3	162.6	156.8
65°	535.2	228.8	158.3	143.9	139.6
67.5°	467.6	192.8	138.1	126.6	123.7
70°	401.4	161.1	119.4	109.3	106.5
72.5°	336.7	130.9	100.7	93.5	90.6
75°	269.1	105.0	82.0	77.7	76.3
77.5°	210.1	82.0	66.2	63.3	61.9
80°	153.9	60.4	51.8	48.9	47.5
82.5°	102.2	41.7	37.4	36.0	34.5
85°	53.2	25.9	23.0	23.0	21.6
87.5°	17.3	11.5	11.5	11.5	10.1
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	21.71	23.18	22.08	23.50	23.81	16.52	17.99	16.88	18.30	18.62
	3H	24.04	25.36	24.42	25.69	26.05	18.17	19.48	18.55	19.81	20.17
	4H	24.94	26.17	25.34	26.52	26.90	18.80	20.04	19.20	20.39	20.77
	6H	25.60	26.74	26.02	27.11	27.50	19.30	20.44	19.71	20.80	21.20
	8H	25.81	26.89	26.24	27.28	27.69	19.47	20.55	19.89	20.94	21.34
	12H	25.93	26.96	26.36	27.35	27.78	19.58	20.62	20.01	21.00	21.43
4H	2H	21.73	22.97	22.13	23.31	23.69	17.24	18.47	17.64	18.82	19.20
	3H	24.14	25.17	24.55	25.57	25.97	19.08	20.11	19.49	20.51	20.91
	4H	25.07	26.00	25.51	26.41	26.85	19.83	20.75	20.26	21.17	21.61
	6H	25.85	26.65	26.31	27.10	27.56	20.45	21.25	20.90	21.69	22.15
	8H	26.12	26.87	26.59	27.32	27.78	20.66	21.41	21.13	21.86	22.32
	12H	26.30	26.97	26.78	27.45	27.92	20.82	21.49	21.31	21.97	22.44
8H	4H	25.07	25.82	25.53	26.26	26.73	20.21	20.96	20.67	21.40	21.87
	6H	25.87	26.49	26.37	26.98	27.46	20.95	21.57	21.45	22.06	22.54
	8H	26.17	26.73	26.69	27.24	27.73	21.24	21.80	21.76	22.31	22.80
	12H	26.41	26.89	26.92	27.39	27.95	21.49	21.98	22.00	22.47	23.03
12H	4H	25.05	25.71	25.53	26.19	26.67	20.27	20.93	20.75	21.41	21.89
	6H	25.85	26.40	26.36	26.91	27.40	21.03	21.59	21.55	22.10	22.59
	8H	26.18	26.67	26.69	27.16	27.73	21.39	21.88	21.90	22.37	22.94