

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: P1055167

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055167
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-2)
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-B
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

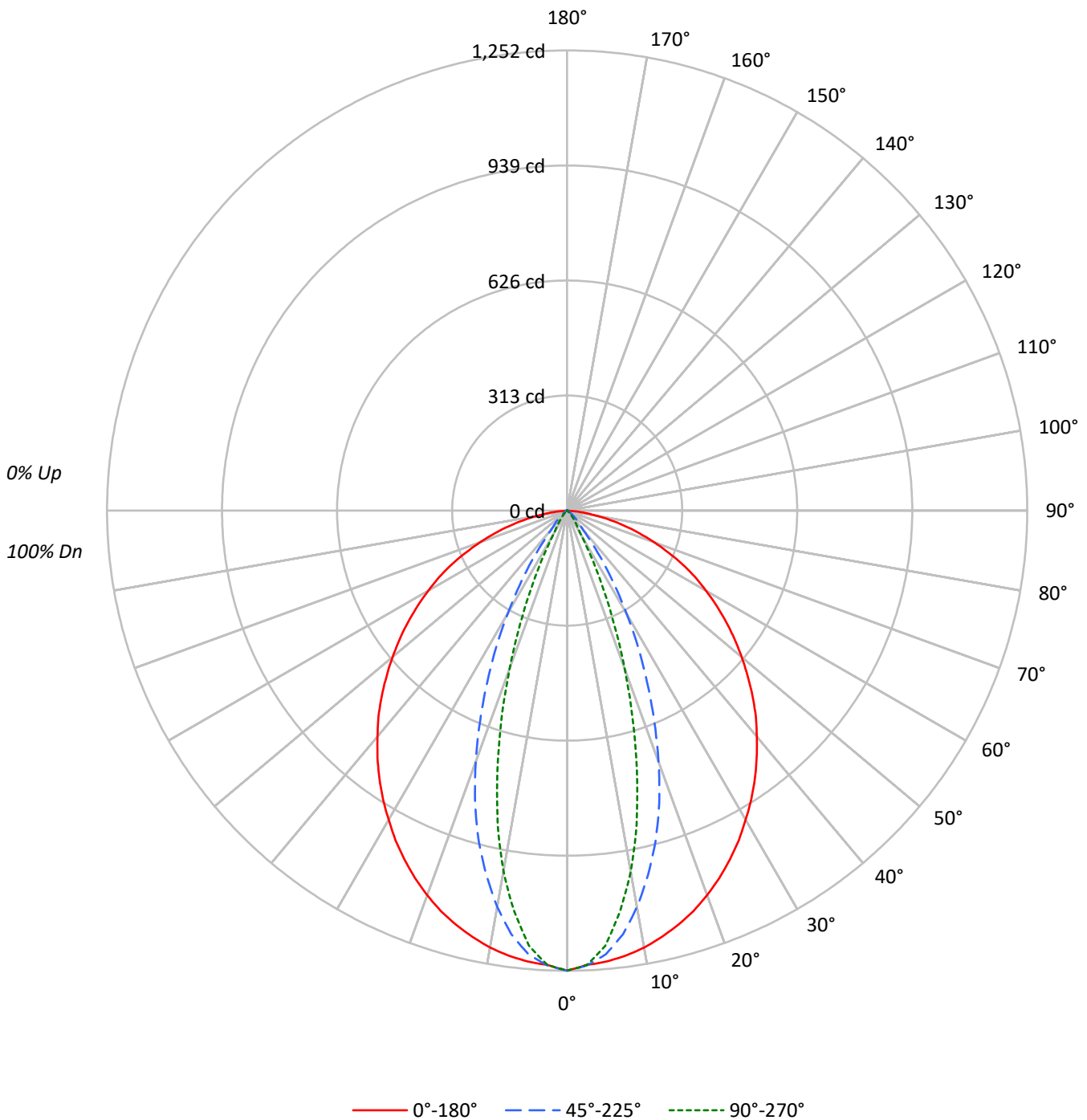
Lumens per Lamp: N/A
Luminaire Lumens: 1138.8 lumens
Efficiency: N/A
Efficacy: 27.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (A_{in}): 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	112	109	106	103	110	106	104	101	102	100	98	99	97	95	95	94	92	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	81					81			
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74					74			
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67					67			
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	66	63	61					61			
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	56					56			
7	77	67	60	55	76	66	59	55	65	59	55	63	58	54	62	57	54	52					52			
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49					49			
9	70	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45					45			
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	48	44	43					43			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23715	23715	23715
5°	23423	23041	22601
10°	23222	21064	19182
15°	22888	18231	14363
20°	22452	14650	9196
25°	21895	10737	4722
30°	21247	7018	1542
35°	20598	3893	897
40°	19855	1566	497
45°	19120	1040	193
50°	18277	592	85
55°	17440	284	46
60°	16521	110	0
65°	15542	63	0
70°	13948	78	0
75°	12005	102	0
80°	9099	0	0
85°	3761	304	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 19120 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.2	9.9
10°-20°	260.7	22.9
20°-30°	264.7	23.2
30°-40°	198.6	17.4
40°-50°	139.1	12.2
50°-60°	85.1	7.5
60°-70°	50.7	4.5
70°-80°	23.4	2.1
80°-90°	4.2	0.4
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°	637.7	56.0
0°-40°	836.3	73.4
0°-60°	1060.5	93.1
0°-90°	1138.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1138.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1252	1252	1252	1252	1252	
5°	1232	1243	1212	1188	1188	117
15°	1167	1104	930	787	732	329
25°	1047	863	514	294	226	482
35°	891	580	168	50	39	557
45°	714	306	39	12	7	550
55°	528	94	9	3	1	472
65°	347	27	1	1	0	342
75°	164	3	1	1	0	174
85°	17	0	1	1	0	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1251.7	1251.7	1251.7	1251.7	1251.7
2.5°	1237.4	1256.1	1238.8	1235.9	1237.4
5°	1231.6	1243.1	1211.5	1188.4	1188.4
7.5°	1221.5	1221.5	1162.5	1115.1	1100.7
10°	1207.1	1191.3	1094.9	1018.7	997.1
12.5°	1188.4	1151.0	1015.8	907.9	873.3
15°	1166.9	1103.5	929.5	787.0	732.3
17.5°	1142.4	1050.3	833.1	656.1	592.8
20°	1113.6	992.8	726.6	522.3	456.1
22.5°	1082.0	929.5	618.7	402.9	332.4
25°	1047.4	863.3	513.6	293.5	225.9
27.5°	1011.5	794.2	417.2	201.4	138.1
30°	971.2	722.3	320.8	119.4	70.5
32.5°	932.3	653.2	240.3	64.7	51.8
35°	890.6	579.8	168.3	50.4	38.8
37.5°	847.4	510.8	103.6	37.4	28.8
40°	802.8	440.3	63.3	27.3	20.1
42.5°	759.7	374.1	50.4	18.7	12.9
45°	713.6	306.5	38.8	11.5	7.2
47.5°	666.2	244.6	28.8	7.2	4.3
50°	620.1	189.9	20.1	4.3	2.9
52.5°	574.1	139.6	12.9	2.9	1.4
55°	528.0	93.5	8.6	2.9	1.4
57.5°	482.0	66.2	5.8	1.4	1.4
60°	436.0	51.8	2.9	1.4	0.0
62.5°	392.8	40.3	2.9	1.4	1.4
65°	346.7	27.3	1.4	1.4	0.0
67.5°	297.8	17.3	1.4	1.4	0.0
70°	251.8	10.1	1.4	1.4	0.0
72.5°	207.2	5.8	1.4	1.4	0.0
75°	164.0	2.9	1.4	1.4	0.0
77.5°	122.3	1.4	0.0	1.4	0.0
80°	83.4	0.0	0.0	1.4	0.0
82.5°	48.9	0.0	0.0	1.4	0.0
85°	17.3	0.0	1.4	1.4	0.0
87.5°	0.0	0.0	1.4	1.4	0.0
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	17.21	18.47	17.58	18.78	19.10	0.00	0.00	0.00	0.00	0.00
	3H	20.95	22.07	21.33	22.40	22.77	0.00	0.00	0.00	0.00	0.00
	4H	22.26	23.31	22.67	23.66	24.04	0.00	0.00	0.00	0.00	0.00
	6H	23.12	24.07	23.53	24.45	24.84	0.00	0.00	0.00	0.00	0.00
	8H	23.33	24.24	23.76	24.63	25.03	0.00	0.00	0.00	0.00	0.00
	12H	23.40	24.26	23.83	24.64	25.07	0.00	0.00	0.00	0.00	0.00
4H	2H	16.97	18.01	17.37	18.36	18.74	0.00	0.00	0.00	0.00	0.00
	3H	20.71	21.56	21.12	21.97	22.37	0.00	0.00	0.00	0.00	0.00
	4H	22.00	22.77	22.44	23.19	23.63	0.00	0.00	0.00	0.00	0.00
	6H	22.92	23.58	23.39	24.02	24.49	0.00	0.00	0.00	0.00	0.00
	8H	23.18	23.79	23.65	24.24	24.71	0.00	0.00	0.00	0.00	0.00
	12H	23.28	23.82	23.77	24.30	24.78	0.00	0.00	0.00	0.00	0.00
8H	4H	21.86	22.47	22.33	22.92	23.39	0.00	0.00	0.00	0.00	0.00
	6H	22.76	23.26	23.26	23.75	24.23	0.00	0.00	0.00	0.00	0.00
	8H	23.02	23.46	23.54	23.98	24.47	0.00	0.00	0.00	0.00	0.00
	12H	23.13	23.52	23.65	24.02	24.59	0.00	0.00	0.00	0.00	0.00
12H	4H	21.81	22.35	22.30	22.83	23.31	0.00	0.00	0.00	0.00	0.00
	6H	22.70	23.14	23.22	23.66	24.15	0.00	0.00	0.00	0.00	0.00
	8H	22.97	23.36	23.49	23.86	24.43	0.00	0.00	0.00	0.00	0.00