

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: P1055263

Luminaire Tested: S122R3DR-S865D927-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055263
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-S865D927-X4F0-XX-UDD-F-B
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

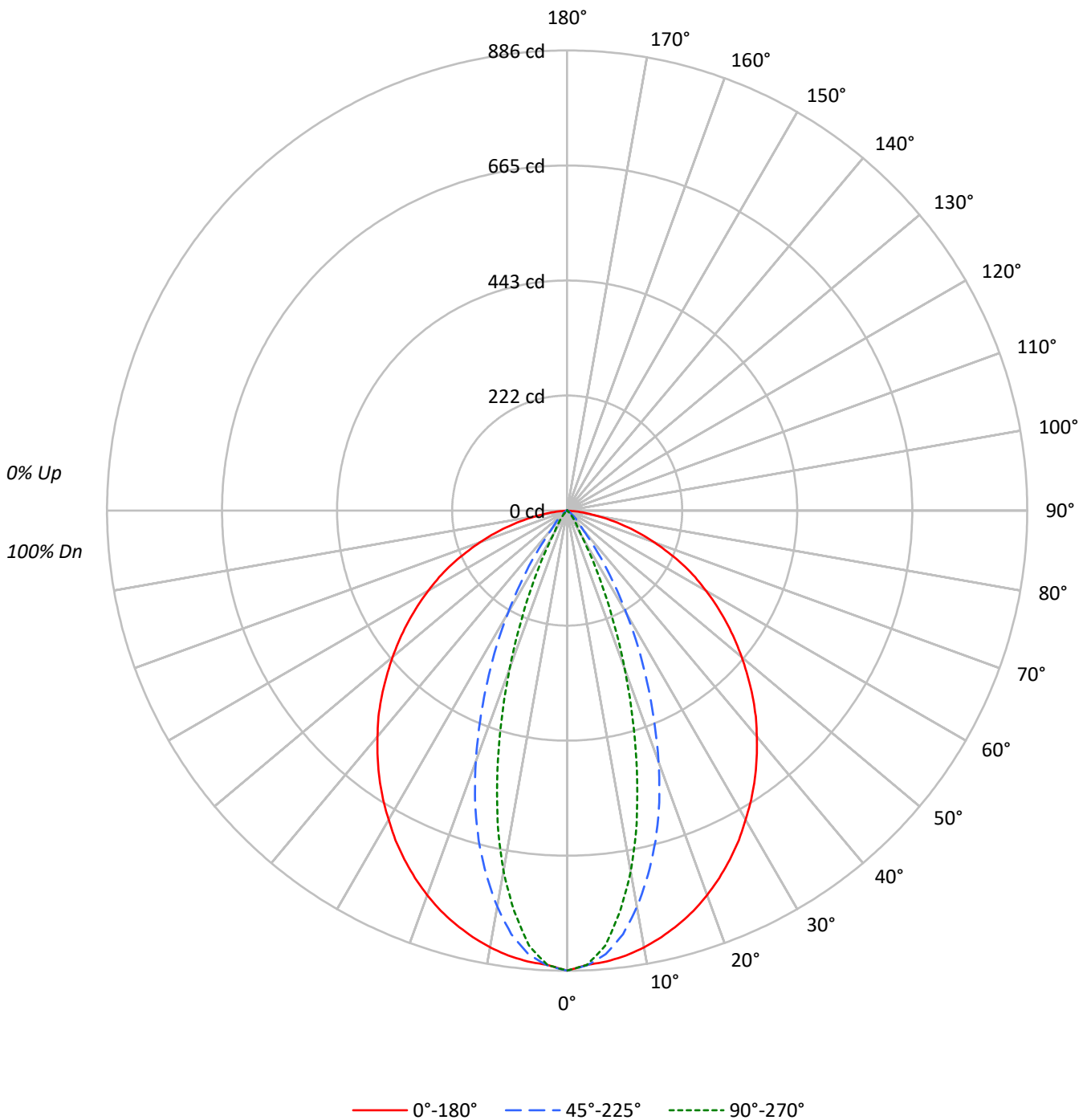
Lumens per Lamp: N/A
Luminaire Lumens: 805.7 lumens
Efficiency: N/A
Efficacy: 23.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16780	16780	16780
5°	16572	16302	15992
10°	16431	14904	13572
15°	16193	12898	10164
20°	15885	10365	6506
25°	15492	7597	3341
30°	15034	4966	1092
35°	14573	2755	636
40°	14048	1108	354
45°	13528	737	137
50°	12933	421	59
55°	12340	201	33
60°	11690	76	0
65°	10997	45	0
70°	9871	55	0
75°	8499	73	0
80°	6437	0	0
85°	2652	217	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13528 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.4	9.9
10°-20°	184.5	22.9
20°-30°	187.3	23.2
30°-40°	140.5	17.4
40°-50°	98.4	12.2
50°-60°	60.2	7.5
60°-70°	35.9	4.5
70°-80°	16.5	2.1
80°-90°	3.0	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°	451.2	56.0
0°-40°	591.7	73.4
0°-60°	750.4	93.1
0°-90°	805.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	805.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	886	886	886	886	886	
5°	871	880	857	841	841	83
15°	826	781	658	557	518	233
25°	741	611	363	208	160	341
35°	630	410	119	36	28	394
45°	505	217	28	8	5	389
55°	374	66	6	2	1	334
65°	245	19	1	1	0	242
75°	116	2	1	1	0	123
85°	12	0	1	1	0	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	885.7	885.7	885.7	885.7	885.7
2.5°	875.5	888.7	876.5	874.5	875.5
5°	871.4	879.6	857.2	840.9	840.9
7.5°	864.3	864.3	822.6	789.0	778.8
10°	854.1	842.9	774.7	720.8	705.5
12.5°	840.9	814.4	718.7	642.4	617.9
15°	825.6	780.8	657.6	556.9	518.2
17.5°	808.3	743.1	589.4	464.2	419.4
20°	787.9	702.4	514.1	369.5	322.7
22.5°	765.5	657.6	437.7	285.0	235.2
25°	741.1	610.8	363.4	207.7	159.8
27.5°	715.7	561.9	295.2	142.5	97.7
30°	687.2	511.0	227.0	84.5	49.9
32.5°	659.7	462.2	170.0	45.8	36.6
35°	630.1	410.3	119.1	35.6	27.5
37.5°	599.6	361.4	73.3	26.5	20.4
40°	568.0	311.5	44.8	19.3	14.3
42.5°	537.5	264.7	35.6	13.2	9.2
45°	504.9	216.8	27.5	8.1	5.1
47.5°	471.3	173.1	20.4	5.1	3.1
50°	438.8	134.4	14.3	3.1	2.0
52.5°	406.2	98.7	9.2	2.0	1.0
55°	373.6	66.2	6.1	2.0	1.0
57.5°	341.0	46.8	4.1	1.0	1.0
60°	308.5	36.6	2.0	1.0	0.0
62.5°	277.9	28.5	2.0	1.0	1.0
65°	245.3	19.3	1.0	1.0	0.0
67.5°	210.7	12.2	1.0	1.0	0.0
70°	178.2	7.1	1.0	1.0	0.0
72.5°	146.6	4.1	1.0	1.0	0.0
75°	116.1	2.0	1.0	1.0	0.0
77.5°	86.5	1.0	0.0	1.0	0.0
80°	59.0	0.0	0.0	1.0	0.0
82.5°	34.6	0.0	0.0	1.0	0.0
85°	12.2	0.0	1.0	1.0	0.0
87.5°	0.0	0.0	1.0	1.0	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	16.01	17.27	16.37	17.58	17.90	0.00	0.00	0.00	0.00	0.00
	3H	19.75	20.87	20.13	21.20	21.56	0.00	0.00	0.00	0.00	0.00
	4H	21.06	22.10	21.47	22.45	22.84	0.00	0.00	0.00	0.00	0.00
	6H	21.92	22.87	22.33	23.24	23.64	0.00	0.00	0.00	0.00	0.00
	8H	22.13	23.03	22.56	23.42	23.83	0.00	0.00	0.00	0.00	0.00
	12H	22.19	23.06	22.63	23.44	23.87	0.00	0.00	0.00	0.00	0.00
4H	2H	15.76	16.80	16.17	17.15	17.54	0.00	0.00	0.00	0.00	0.00
	3H	19.50	20.36	19.92	20.76	21.17	0.00	0.00	0.00	0.00	0.00
	4H	20.80	21.56	21.24	21.98	22.43	0.00	0.00	0.00	0.00	0.00
	6H	21.72	22.37	22.18	22.82	23.29	0.00	0.00	0.00	0.00	0.00
	8H	21.98	22.59	22.45	23.04	23.51	0.00	0.00	0.00	0.00	0.00
	12H	22.08	22.62	22.57	23.10	23.58	0.00	0.00	0.00	0.00	0.00
8H	4H	20.66	21.27	21.13	21.72	22.19	0.00	0.00	0.00	0.00	0.00
	6H	21.56	22.05	22.06	22.55	23.03	0.00	0.00	0.00	0.00	0.00
	8H	21.81	22.26	22.34	22.77	23.27	0.00	0.00	0.00	0.00	0.00
	12H	21.93	22.32	22.45	22.82	23.39	0.00	0.00	0.00	0.00	0.00
12H	4H	20.61	21.15	21.09	21.63	22.10	0.00	0.00	0.00	0.00	0.00
	6H	21.49	21.94	22.02	22.45	22.95	0.00	0.00	0.00	0.00	0.00
	8H	21.77	22.16	22.29	22.65	23.23	0.00	0.00	0.00	0.00	0.00