

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: P1055212

Luminaire Tested: S122R3DRP-S485D930-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055212
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: S122R3DRP-S485D930-X4F0-XX-UDD-F-B
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

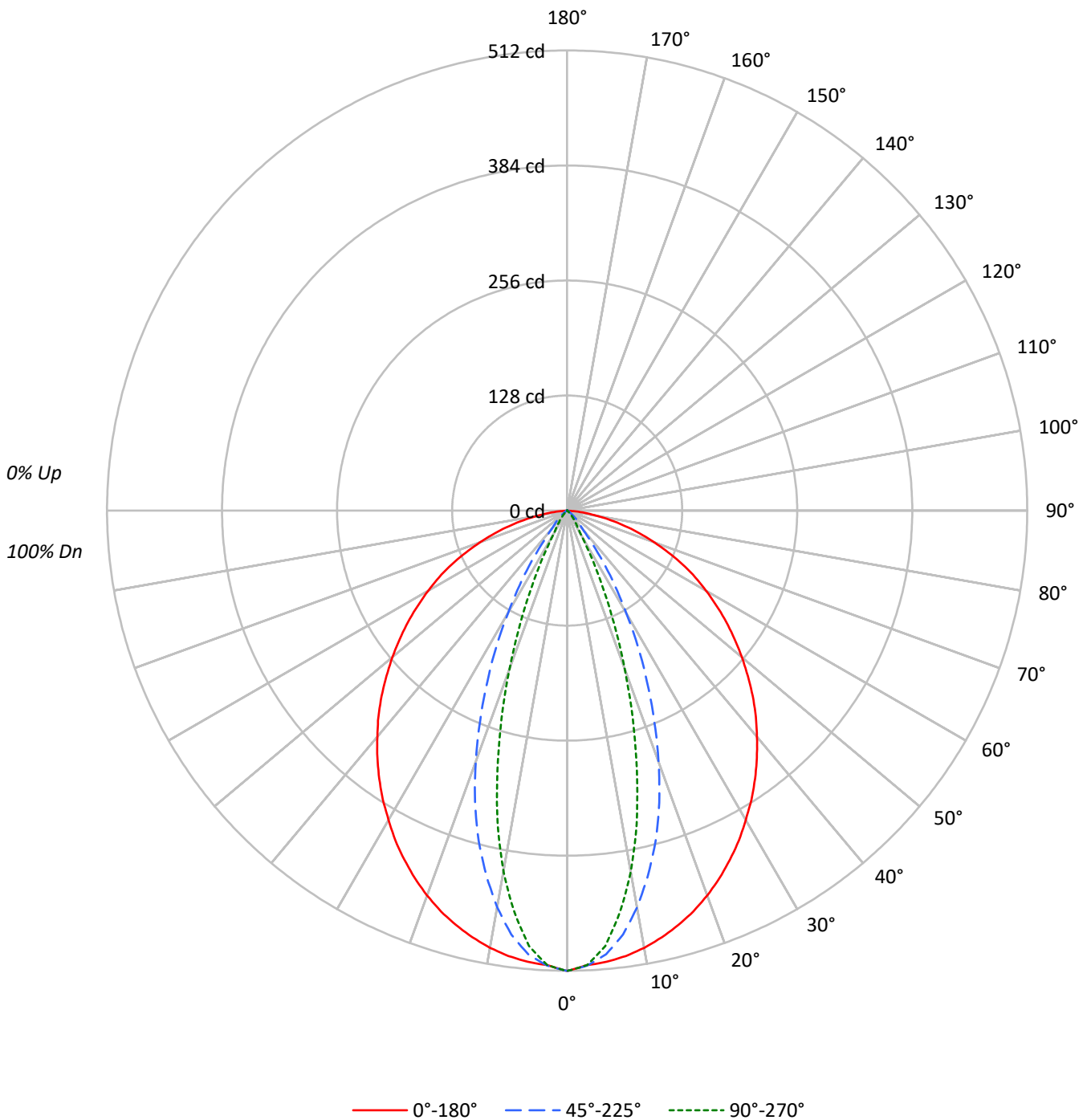
Lumens per Lamp: N/A
Luminaire Lumens: 466.0 lumens
Efficiency: N/A
Efficacy: 24.4 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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	62	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	47	44	43					43			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9704	9704	9704
5°	9585	9427	9249
10°	9504	8621	7849
15°	9366	7459	5878
20°	9188	5994	3762
25°	8960	4394	1932
30°	8694	2872	630
35°	8428	1594	368
40°	8124	641	203
45°	7824	426	78
50°	7481	242	35
55°	7138	116	20
60°	6760	45	0
65°	6361	27	0
70°	5706	33	0
75°	4912	44	0
80°	3720	0	0
85°	1543	130	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7824 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.9	9.9
10°-20°	106.7	22.9
20°-30°	108.3	23.2
30°-40°	81.3	17.4
40°-50°	56.9	12.2
50°-60°	34.8	7.5
60°-70°	20.8	4.5
70°-80°	9.6	2.1
80°-90°	1.7	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°	260.9	56.0
0°-40°	342.2	73.4
0°-60°	434.0	93.1
0°-90°	466.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	466.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	512	512	512	512	512	
5°	504	509	496	486	486	48
15°	478	452	380	322	300	135
25°	429	353	210	120	92	197
35°	364	237	69	21	16	228
45°	292	125	16	5	3	225
55°	216	38	4	1	1	193
65°	142	11	1	1	0	140
75°	67	1	1	1	0	71
85°	7	0	1	1	0	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	512.2	512.2	512.2	512.2	512.2
2.5°	506.3	514.0	506.9	505.7	506.3
5°	504.0	508.7	495.7	486.3	486.3
7.5°	499.9	499.9	475.7	456.3	450.4
10°	494.0	487.5	448.1	416.8	408.0
12.5°	486.3	471.0	415.7	371.5	357.4
15°	477.5	451.6	380.3	322.1	299.7
17.5°	467.5	429.8	340.9	268.5	242.6
20°	455.7	406.2	297.3	213.7	186.6
22.5°	442.8	380.3	253.2	164.9	136.0
25°	428.6	353.3	210.2	120.1	92.4
27.5°	413.9	325.0	170.7	82.4	56.5
30°	397.4	295.6	131.3	48.9	28.8
32.5°	381.5	267.3	98.3	26.5	21.2
35°	364.4	237.3	68.9	20.6	15.9
37.5°	346.8	209.0	42.4	15.3	11.8
40°	328.5	180.2	25.9	11.2	8.2
42.5°	310.9	153.1	20.6	7.7	5.3
45°	292.0	125.4	15.9	4.7	2.9
47.5°	272.6	100.1	11.8	2.9	1.8
50°	253.8	77.7	8.2	1.8	1.2
52.5°	234.9	57.1	5.3	1.2	0.6
55°	216.1	38.3	3.5	1.2	0.6
57.5°	197.2	27.1	2.4	0.6	0.6
60°	178.4	21.2	1.2	0.6	0.0
62.5°	160.7	16.5	1.2	0.6	0.6
65°	141.9	11.2	0.6	0.6	0.0
67.5°	121.9	7.1	0.6	0.6	0.0
70°	103.0	4.1	0.6	0.6	0.0
72.5°	84.8	2.4	0.6	0.6	0.0
75°	67.1	1.2	0.6	0.6	0.0
77.5°	50.0	0.6	0.0	0.6	0.0
80°	34.1	0.0	0.0	0.6	0.0
82.5°	20.0	0.0	0.0	0.6	0.0
85°	7.1	0.0	0.6	0.6	0.0
87.5°	0.0	0.0	0.6	0.6	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	14.11	15.37	14.47	15.68	16.00	0.00	0.00	0.00	0.00	0.00
	3H	17.85	18.97	18.23	19.30	19.66	0.00	0.00	0.00	0.00	0.00
	4H	19.16	20.20	19.56	20.55	20.94	0.00	0.00	0.00	0.00	0.00
	6H	20.01	20.97	20.43	21.34	21.73	0.00	0.00	0.00	0.00	0.00
	8H	20.23	21.13	20.66	21.52	21.93	0.00	0.00	0.00	0.00	0.00
	12H	20.29	21.15	20.72	21.54	21.97	0.00	0.00	0.00	0.00	0.00
4H	2H	13.86	14.90	14.27	15.25	15.64	0.00	0.00	0.00	0.00	0.00
	3H	17.60	18.46	18.02	18.86	19.26	0.00	0.00	0.00	0.00	0.00
	4H	18.90	19.66	19.33	20.08	20.53	0.00	0.00	0.00	0.00	0.00
	6H	19.82	20.47	20.28	20.92	21.39	0.00	0.00	0.00	0.00	0.00
	8H	20.07	20.69	20.54	21.13	21.61	0.00	0.00	0.00	0.00	0.00
	12H	20.18	20.71	20.66	21.20	21.67	0.00	0.00	0.00	0.00	0.00
8H	4H	18.75	19.37	19.22	19.81	20.29	0.00	0.00	0.00	0.00	0.00
	6H	19.65	20.15	20.16	20.65	21.13	0.00	0.00	0.00	0.00	0.00
	8H	19.91	20.35	20.43	20.87	21.36	0.00	0.00	0.00	0.00	0.00
	12H	20.03	20.42	20.54	20.91	21.49	0.00	0.00	0.00	0.00	0.00
12H	4H	18.71	19.24	19.19	19.73	20.20	0.00	0.00	0.00	0.00	0.00
	6H	19.59	20.03	20.11	20.55	21.04	0.00	0.00	0.00	0.00	0.00
	8H	19.87	20.25	20.38	20.75	21.32	0.00	0.00	0.00	0.00	0.00