

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: P1055266

Luminaire Tested: S122R3DR-S865D930-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055266
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-S865D930-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

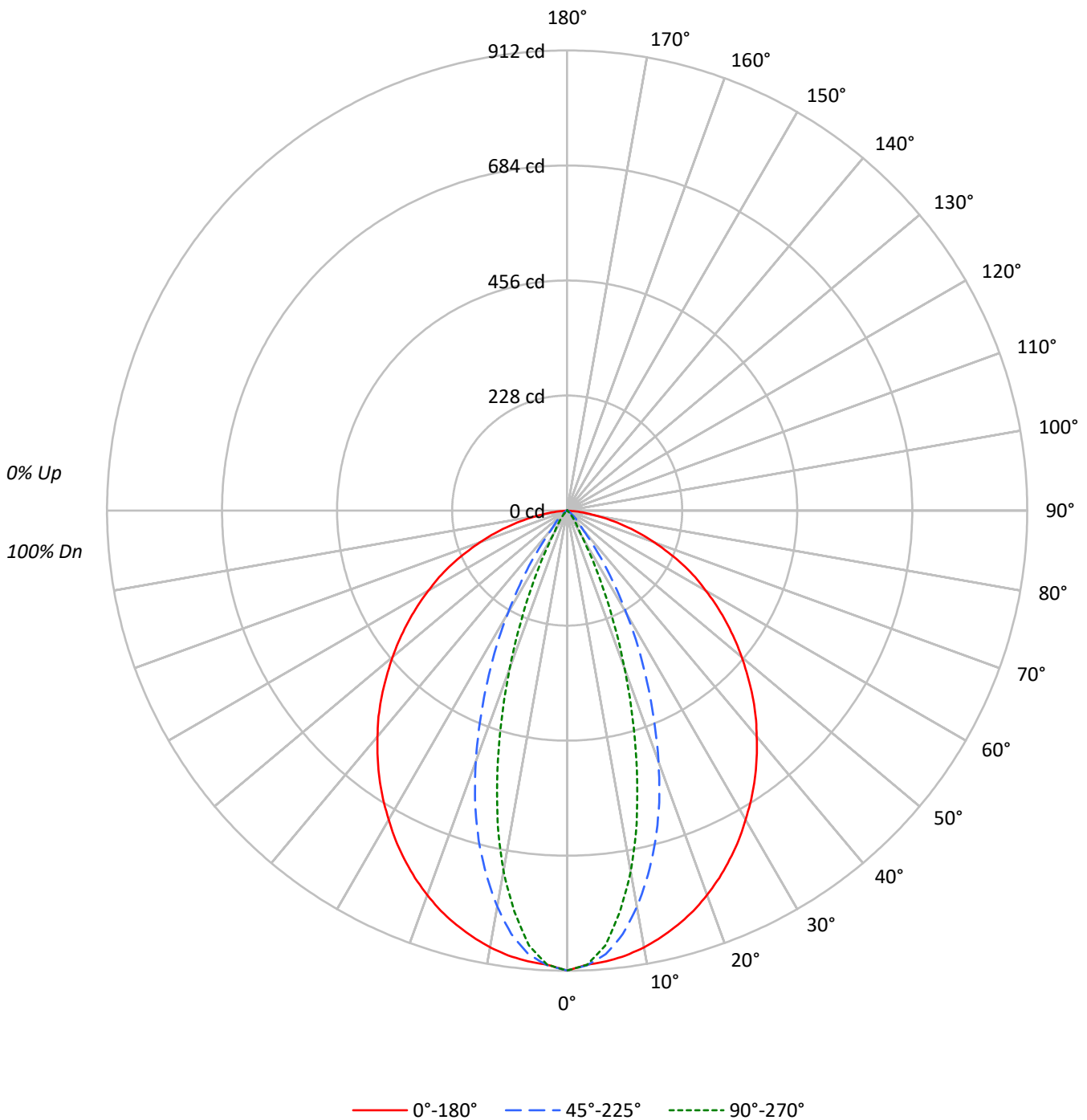
Lumens per Lamp: N/A
Luminaire Lumens: 829.2 lumens
Efficiency: N/A
Efficacy: 23.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
Input Voltage (V): 120
Input Current (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	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°	17269	17269	17269
5°	17056	16778	16458
10°	16910	15339	13969
15°	16666	13275	10460
20°	16349	10668	6696
25°	15944	7818	3439
30°	15471	5110	1122
35°	14999	2836	655
40°	14458	1140	364
45°	13925	758	139
50°	13311	433	62
55°	12700	208	33
60°	12031	80	0
65°	11319	45	0
70°	10159	55	0
75°	8740	73	0
80°	6634	0	0
85°	2739	217	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 13925 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.7	9.9
10°-20°	189.9	22.9
20°-30°	192.8	23.2
30°-40°	144.6	17.4
40°-50°	101.3	12.2
50°-60°	62.0	7.5
60°-70°	36.9	4.5
70°-80°	17.0	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°	464.3	56.0
0°-40°	609.0	73.4
0°-60°	772.3	93.1
0°-90°	829.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	829.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	912	912	912	912	912	
5°	897	905	882	865	865	85
15°	850	804	677	573	533	239
25°	763	629	374	214	164	351
35°	648	422	123	37	28	405
45°	520	223	28	8	5	401
55°	384	68	6	2	1	344
65°	252	20	1	1	0	249
75°	119	2	1	1	0	127
85°	13	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°	911.5	911.5	911.5	911.5	911.5
2.5°	901.0	914.7	902.1	900.0	901.0
5°	896.8	905.2	882.2	865.4	865.4
7.5°	889.5	889.5	846.6	812.0	801.5
10°	879.0	867.5	797.3	741.8	726.1
12.5°	865.4	838.2	739.7	661.1	636.0
15°	849.7	803.6	676.8	573.1	533.3
17.5°	831.9	764.8	606.6	477.8	431.7
20°	810.9	722.9	529.1	380.3	332.1
22.5°	787.9	676.8	450.5	293.4	242.0
25°	762.7	628.6	374.0	213.7	164.5
27.5°	736.5	578.3	303.8	146.7	100.6
30°	707.2	526.0	233.6	87.0	51.3
32.5°	678.9	475.7	175.0	47.1	37.7
35°	648.5	422.2	122.6	36.7	28.3
37.5°	617.1	371.9	75.4	27.2	21.0
40°	584.6	320.6	46.1	19.9	14.7
42.5°	553.2	272.4	36.7	13.6	9.4
45°	519.7	223.2	28.3	8.4	5.2
47.5°	485.1	178.1	21.0	5.2	3.1
50°	451.6	138.3	14.7	3.1	2.1
52.5°	418.0	101.6	9.4	2.1	1.0
55°	384.5	68.1	6.3	2.1	1.0
57.5°	351.0	48.2	4.2	1.0	1.0
60°	317.5	37.7	2.1	1.0	0.0
62.5°	286.0	29.3	2.1	1.0	1.0
65°	252.5	19.9	1.0	1.0	0.0
67.5°	216.9	12.6	1.0	1.0	0.0
70°	183.4	7.3	1.0	1.0	0.0
72.5°	150.9	4.2	1.0	1.0	0.0
75°	119.4	2.1	1.0	1.0	0.0
77.5°	89.1	1.0	0.0	1.0	0.0
80°	60.8	0.0	0.0	1.0	0.0
82.5°	35.6	0.0	0.0	1.0	0.0
85°	12.6	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	16.11	17.37	16.48	17.68	18.00	0.00	0.00	0.00	0.00	0.00
	3H	19.85	20.97	20.23	21.30	21.67	0.00	0.00	0.00	0.00	0.00
	4H	21.16	22.20	21.57	22.55	22.94	0.00	0.00	0.00	0.00	0.00
	6H	22.02	22.97	22.43	23.34	23.74	0.00	0.00	0.00	0.00	0.00
	8H	22.23	23.13	22.66	23.53	23.93	0.00	0.00	0.00	0.00	0.00
	12H	22.30	23.16	22.73	23.54	23.97	0.00	0.00	0.00	0.00	0.00
4H	2H	15.86	16.90	16.27	17.26	17.64	0.00	0.00	0.00	0.00	0.00
	3H	19.61	20.46	20.02	20.86	21.27	0.00	0.00	0.00	0.00	0.00
	4H	20.90	21.66	21.34	22.08	22.53	0.00	0.00	0.00	0.00	0.00
	6H	21.82	22.48	22.28	22.92	23.39	0.00	0.00	0.00	0.00	0.00
	8H	22.08	22.69	22.55	23.14	23.61	0.00	0.00	0.00	0.00	0.00
	12H	22.18	22.72	22.67	23.20	23.68	0.00	0.00	0.00	0.00	0.00
8H	4H	20.76	21.37	21.23	21.82	22.29	0.00	0.00	0.00	0.00	0.00
	6H	21.66	22.15	22.16	22.65	23.13	0.00	0.00	0.00	0.00	0.00
	8H	21.92	22.36	22.44	22.88	23.37	0.00	0.00	0.00	0.00	0.00
	12H	22.03	22.42	22.55	22.92	23.49	0.00	0.00	0.00	0.00	0.00
12H	4H	20.71	21.25	21.19	21.73	22.20	0.00	0.00	0.00	0.00	0.00
	6H	21.59	22.04	22.12	22.56	23.05	0.00	0.00	0.00	0.00	0.00
	8H	21.87	22.26	22.39	22.76	23.33	0.00	0.00	0.00	0.00	0.00