

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: P1055275

Luminaire Tested: S122R3DR-S865D950-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055275
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-S865D950-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

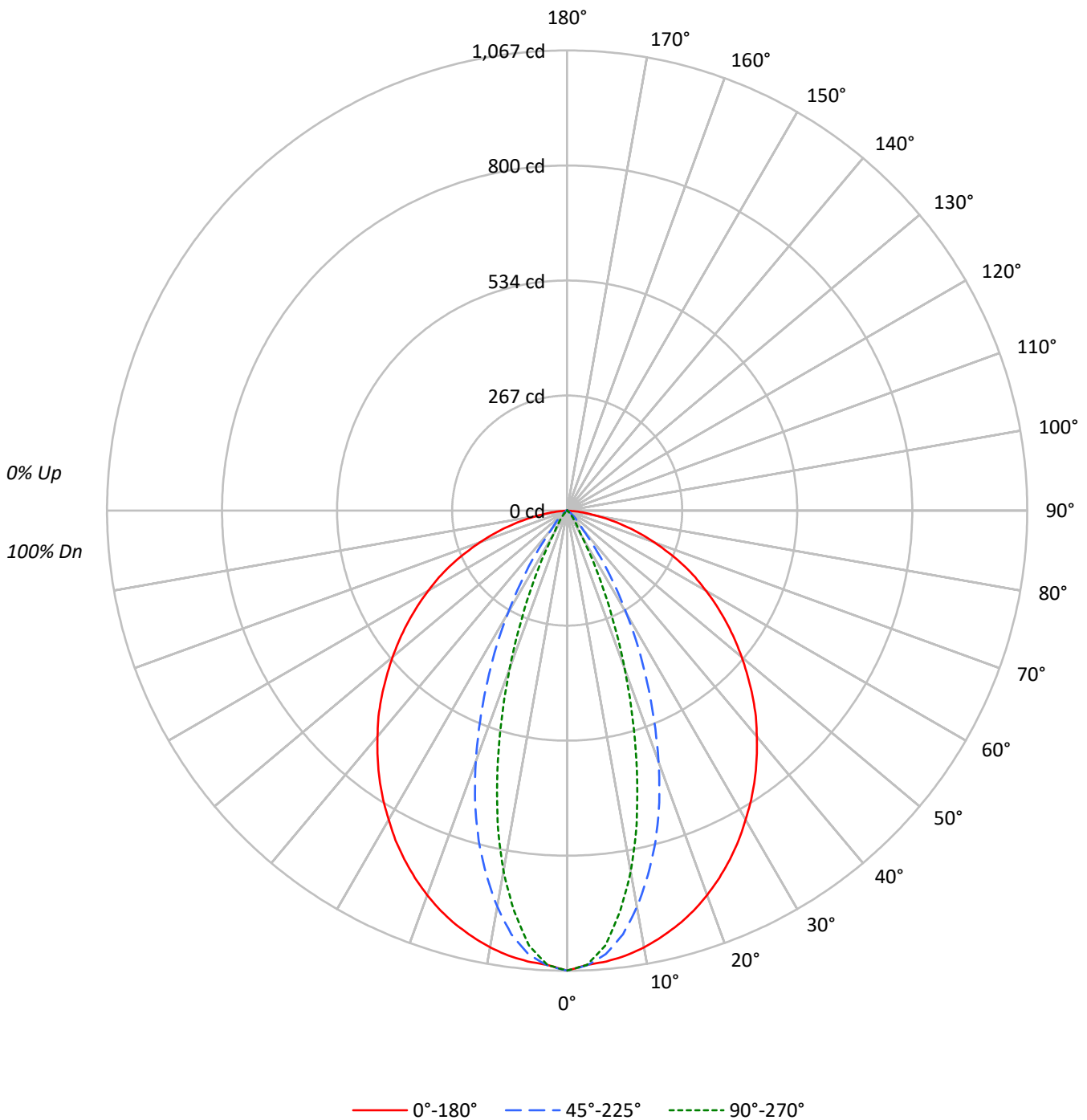
Lumens per Lamp: N/A
Luminaire Lumens: 970.3 lumens
Efficiency: N/A
Efficacy: 28.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	20208	20208	20208
5°	19958	19633	19258
10°	19788	17949	16345
15°	19502	15534	12239
20°	19131	12482	7835
25°	18657	9150	4024
30°	18103	5981	1315
35°	17552	3317	766
40°	16919	1333	425
45°	16293	887	163
50°	15574	507	74
55°	14861	244	40
60°	14077	95	0
65°	13247	54	0
70°	11882	66	0
75°	10234	88	0
80°	7757	0	0
85°	3195	261	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16293 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.6	9.9
10°-20°	222.2	22.9
20°-30°	225.6	23.2
30°-40°	169.3	17.4
40°-50°	118.5	12.2
50°-60°	72.5	7.5
60°-70°	43.2	4.5
70°-80°	19.9	2.1
80°-90°	3.6	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°	543.3	56.0
0°-40°	712.6	73.4
0°-60°	903.7	93.1
0°-90°	970.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	970.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1067	1067	1067	1067	1067	
5°	1049	1059	1032	1013	1013	100
15°	994	940	792	671	624	280
25°	892	736	438	250	192	411
35°	759	494	143	43	33	474
45°	608	261	33	10	6	469
55°	450	80	7	2	1	402
65°	296	23	1	1	0	291
75°	140	2	1	1	0	148
85°	15	0	1	1	0	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1066.6	1066.6	1066.6	1066.6	1066.6
2.5°	1054.3	1070.3	1055.6	1053.1	1054.3
5°	1049.4	1059.2	1032.3	1012.6	1012.6
7.5°	1040.8	1040.8	990.6	950.1	937.9
10°	1028.6	1015.1	933.0	868.0	849.6
12.5°	1012.6	980.8	865.5	773.6	744.2
15°	994.3	940.3	792.0	670.6	624.0
17.5°	973.4	895.0	709.8	559.0	505.1
20°	948.9	845.9	619.1	445.0	388.6
22.5°	921.9	792.0	527.2	343.3	283.2
25°	892.5	735.6	437.7	250.1	192.5
27.5°	861.8	676.7	355.5	171.6	117.7
30°	827.5	615.4	273.4	101.8	60.1
32.5°	794.4	556.6	204.7	55.2	44.1
35°	758.9	494.1	143.4	42.9	33.1
37.5°	722.1	435.2	88.3	31.9	24.5
40°	684.1	375.1	53.9	23.3	17.2
42.5°	647.3	318.7	42.9	15.9	11.0
45°	608.1	261.1	33.1	9.8	6.1
47.5°	567.6	208.4	24.5	6.1	3.7
50°	528.4	161.8	17.2	3.7	2.5
52.5°	489.2	118.9	11.0	2.5	1.2
55°	449.9	79.7	7.4	2.5	1.2
57.5°	410.7	56.4	4.9	1.2	1.2
60°	371.5	44.1	2.5	1.2	0.0
62.5°	334.7	34.3	2.5	1.2	1.2
65°	295.5	23.3	1.2	1.2	0.0
67.5°	253.8	14.7	1.2	1.2	0.0
70°	214.5	8.6	1.2	1.2	0.0
72.5°	176.5	4.9	1.2	1.2	0.0
75°	139.8	2.5	1.2	1.2	0.0
77.5°	104.2	1.2	0.0	1.2	0.0
80°	71.1	0.0	0.0	1.2	0.0
82.5°	41.7	0.0	0.0	1.2	0.0
85°	14.7	0.0	1.2	1.2	0.0
87.5°	0.0	0.0	1.2	1.2	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	16.66	17.92	17.02	18.23	18.54	0.00	0.00	0.00	0.00	0.00
	3H	20.40	21.51	20.78	21.85	22.21	0.00	0.00	0.00	0.00	0.00
	4H	21.71	22.75	22.11	23.10	23.48	0.00	0.00	0.00	0.00	0.00
	6H	22.56	23.52	22.98	23.89	24.28	0.00	0.00	0.00	0.00	0.00
	8H	22.78	23.68	23.21	24.07	24.48	0.00	0.00	0.00	0.00	0.00
	12H	22.84	23.70	23.27	24.09	24.52	0.00	0.00	0.00	0.00	0.00
4H	2H	16.41	17.45	16.81	17.80	18.19	0.00	0.00	0.00	0.00	0.00
	3H	20.15	21.00	20.56	21.41	21.81	0.00	0.00	0.00	0.00	0.00
	4H	21.45	22.21	21.88	22.63	23.07	0.00	0.00	0.00	0.00	0.00
	6H	22.37	23.02	22.83	23.47	23.94	0.00	0.00	0.00	0.00	0.00
	8H	22.62	23.24	23.09	23.68	24.16	0.00	0.00	0.00	0.00	0.00
	12H	22.73	23.26	23.21	23.75	24.22	0.00	0.00	0.00	0.00	0.00
8H	4H	21.30	21.91	21.77	22.36	22.83	0.00	0.00	0.00	0.00	0.00
	6H	22.20	22.70	22.71	23.20	23.68	0.00	0.00	0.00	0.00	0.00
	8H	22.46	22.90	22.98	23.42	23.91	0.00	0.00	0.00	0.00	0.00
	12H	22.58	22.97	23.09	23.46	24.04	0.00	0.00	0.00	0.00	0.00
12H	4H	21.25	21.79	21.74	22.28	22.75	0.00	0.00	0.00	0.00	0.00
	6H	22.14	22.58	22.66	23.10	23.59	0.00	0.00	0.00	0.00	0.00
	8H	22.42	22.81	22.93	23.30	23.87	0.00	0.00	0.00	0.00	0.00