

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: P1055273

Luminaire Tested: S122R3DR-S865D940-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055273
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S865D940-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

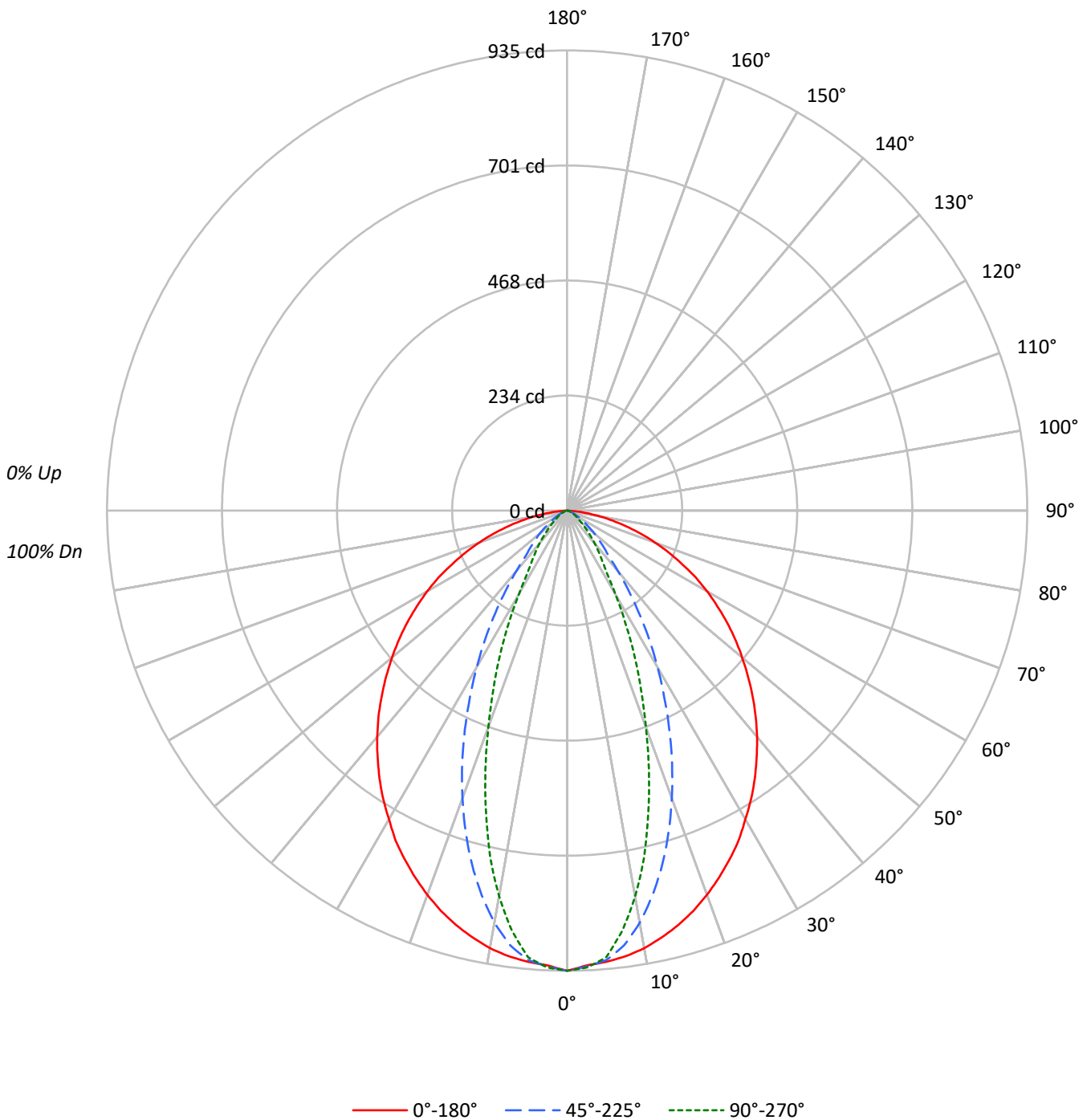
Lumens per Lamp: N/A
Luminaire Lumens: 1071.6 lumens
Efficiency: N/A
Efficacy: 30.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17716	17716	17716
5°	17501	17434	17326
10°	17372	16358	15321
15°	17104	14632	12496
20°	16750	12545	9426
25°	16337	10277	6731
30°	15843	8022	4286
35°	15371	5884	2863
40°	14852	3967	2154
45°	14276	2795	1535
50°	13679	2128	1082
55°	13097	1476	796
60°	12463	1000	652
65°	11557	717	516
70°	10536	571	443
75°	9143	505	337
80°	7255	371	371
85°	3978	500	239

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14276 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.5	8.0
10°-20°	209.8	19.6
20°-30°	239.7	22.4
30°-40°	203.3	19.0
40°-50°	151.7	14.2
50°-60°	98.0	9.1
60°-70°	54.6	5.1
70°-80°	24.0	2.2
80°-90°	4.9	0.5
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°	535.0	49.9
0°-40°	738.3	68.9
0°-60°	988.0	92.2
0°-90°	1071.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1071.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	935	935	935	935	935	
5°	920	932	917	908	911	87
15°	872	850	746	667	637	246
25°	782	690	492	360	322	360
35°	665	501	254	139	124	415
45°	533	316	104	68	57	411
55°	396	150	45	28	24	355
65°	258	55	16	13	12	256
75°	125	12	7	6	5	133
85°	18	1	2	1	1	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	935.1	935.1	935.1	935.1	935.1
2.5°	924.7	938.5	927.0	927.0	929.3
5°	920.2	931.6	916.7	907.6	911.0
7.5°	913.3	921.3	890.4	862.9	860.6
10°	903.0	906.4	850.3	807.9	796.4
12.5°	888.1	880.1	801.0	741.4	721.9
15°	872.0	850.3	746.0	666.9	637.1
17.5°	852.6	813.6	685.3	589.0	552.3
20°	830.8	775.8	622.2	507.6	467.5
22.5°	806.7	733.4	556.9	430.9	390.8
25°	781.5	689.8	491.6	359.8	322.0
27.5°	755.2	644.0	427.4	295.6	254.4
30°	724.2	597.0	366.7	233.8	195.9
32.5°	695.6	547.7	310.5	181.1	149.0
35°	664.6	500.8	254.4	138.7	123.8
37.5°	632.5	453.8	205.1	116.9	104.3
40°	600.5	406.8	160.4	98.5	87.1
42.5°	567.2	361.0	123.8	82.5	71.0
45°	532.8	316.3	104.3	67.6	57.3
47.5°	498.5	271.6	87.1	53.9	45.8
50°	464.1	229.2	72.2	42.4	36.7
52.5°	430.9	189.1	57.3	34.4	29.8
55°	396.5	150.1	44.7	27.5	24.1
57.5°	362.1	116.9	34.4	22.9	20.6
60°	328.9	88.2	26.4	18.3	17.2
62.5°	294.5	71.0	20.6	14.9	13.8
65°	257.8	55.0	16.0	12.6	11.5
67.5°	224.6	40.1	12.6	10.3	9.2
70°	190.2	27.5	10.3	9.2	8.0
72.5°	157.0	17.2	8.0	6.9	6.9
75°	124.9	11.5	6.9	5.7	4.6
77.5°	95.1	6.9	4.6	4.6	3.4
80°	66.5	4.6	3.4	3.4	3.4
82.5°	41.3	3.4	2.3	2.3	2.3
85°	18.3	1.1	2.3	1.1	1.1
87.5°	3.4	1.1	1.1	1.1	1.1
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	18.24	19.56	18.60	19.87	20.19	4.54	5.86	4.91	6.17	6.49
	3H	20.71	21.88	21.09	22.21	22.57	5.40	6.57	5.77	6.90	7.26
	4H	21.66	22.76	22.07	23.11	23.49	5.67	6.76	6.07	7.11	7.50
	6H	22.35	23.36	22.77	23.73	24.12	5.86	6.86	6.27	7.23	7.63
	8H	22.55	23.50	22.98	23.89	24.29	5.93	6.88	6.36	7.27	7.68
	12H	22.63	23.54	23.06	23.92	24.35	5.96	6.86	6.39	7.25	7.68
4H	2H	18.02	19.12	18.43	19.47	19.85	5.11	6.20	5.51	6.55	6.94
	3H	20.51	21.40	20.92	21.81	22.21	6.15	7.04	6.56	7.45	7.85
	4H	21.45	22.25	21.89	22.67	23.11	6.52	7.32	6.95	7.73	8.18
	6H	22.21	22.90	22.67	23.34	23.81	6.80	7.49	7.27	7.94	8.41
	8H	22.45	23.09	22.92	23.54	24.01	6.90	7.55	7.37	7.99	8.46
	12H	22.58	23.15	23.06	23.63	24.10	6.94	7.51	7.43	8.00	8.47
8H	4H	21.32	21.96	21.79	22.41	22.88	6.89	7.53	7.36	7.98	8.45
	6H	22.06	22.58	22.56	23.08	23.56	7.24	7.77	7.75	8.27	8.75
	8H	22.30	22.77	22.82	23.29	23.78	7.38	7.85	7.91	8.37	8.86
	12H	22.45	22.87	22.97	23.36	23.93	7.46	7.88	7.98	8.37	8.94
12H	4H	21.27	21.84	21.76	22.33	22.80	7.01	7.58	7.50	8.06	8.54
	6H	22.00	22.47	22.52	22.98	23.48	7.36	7.83	7.89	8.35	8.84
	8H	22.26	22.68	22.78	23.17	23.74	7.54	7.96	8.06	8.45	9.02