

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: P1055255

Luminaire Tested: S122R3DR-S865D835-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055255
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-S865D835-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

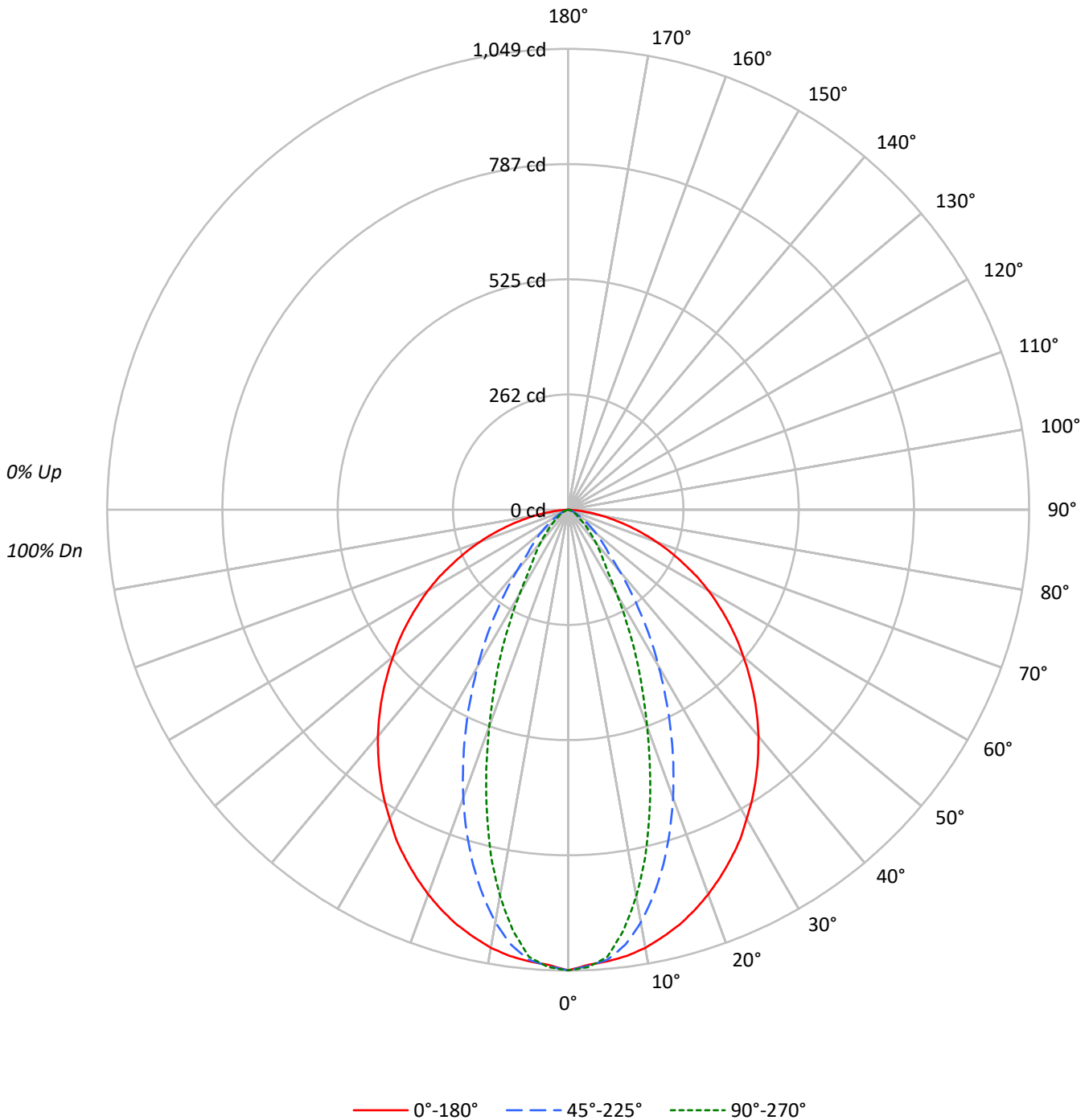
Lumens per Lamp: N/A
Luminaire Lumens: 1201.8 lumens
Efficiency: N/A
Efficacy: 34.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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	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	108	105	102	109	106	103	100	102	99	97		98	96	94		94	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85		90	86	83		87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76		82	78	74		80	76	73	71
4	91	81	74	69	89	80	74	69	78	72	68		76	71	67		74	70	66	64
5	85	75	67	62	83	74	67	62	72	66	61		70	65	61		68	64	60	58
6	80	69	62	56	78	68	61	56	66	60	56		65	59	55		63	59	55	53
7	75	64	57	52	74	63	56	51	62	56	51		60	55	51		59	54	50	49
8	71	59	52	47	69	59	52	47	58	51	47		56	51	47		55	50	47	45
9	67	56	49	44	66	55	48	44	54	48	44		53	47	43		52	47	43	42
10	63	52	45	41	62	52	45	41	51	45	41		50	44	40		49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19867	19867	19867
5°	19625	19553	19429
10°	19481	18344	17182
15°	19181	16409	14014
20°	18785	14069	10571
25°	18321	11525	7549
30°	17768	8996	4806
35°	17238	6599	3210
40°	16655	4449	2416
45°	16012	3132	1723
50°	15341	2387	1211
55°	14686	1655	892
60°	13974	1122	731
65°	12960	807	578
70°	11816	643	499
75°	10255	564	373
80°	8128	426	426
85°	4478	565	283

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16012 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.9	8.0
10°-20°	235.3	19.6
20°-30°	268.8	22.4
30°-40°	228.0	19.0
40°-50°	170.1	14.2
50°-60°	109.9	9.1
60°-70°	61.3	5.1
70°-80°	26.9	2.2
80°-90°	5.6	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°	600.0	49.9
0°-40°	828.0	68.9
0°-60°	1108.0	92.2
0°-90°	1201.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1201.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1049	1049	1049	1049	1049	
5°	1032	1045	1028	1018	1022	98
15°	978	954	837	748	714	275
25°	876	774	551	404	361	403
35°	745	562	285	156	139	466
45°	598	355	117	76	64	461
55°	445	168	50	31	27	398
65°	289	62	18	14	13	287
75°	140	13	8	6	5	149
85°	21	1	3	1	1	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1048.6	1048.6	1048.6	1048.6	1048.6
2.5°	1037.0	1052.5	1039.6	1039.6	1042.2
5°	1031.9	1044.8	1028.1	1017.8	1021.6
7.5°	1024.2	1033.2	998.5	967.7	965.1
10°	1012.6	1016.5	953.5	906.0	893.1
12.5°	995.9	986.9	898.3	831.4	809.6
15°	977.9	953.5	836.6	747.9	714.5
17.5°	956.1	912.4	768.5	660.5	619.4
20°	931.7	870.0	697.8	569.3	524.3
22.5°	904.7	822.4	624.5	483.2	438.2
25°	876.4	773.6	551.3	403.5	361.1
27.5°	846.9	722.2	479.3	331.5	285.3
30°	812.2	669.5	411.2	262.2	219.7
32.5°	780.0	614.3	348.3	203.0	167.1
35°	745.3	561.6	285.3	155.5	138.8
37.5°	709.4	508.9	230.0	131.1	116.9
40°	673.4	456.2	179.9	110.5	97.7
42.5°	636.1	404.8	138.8	92.5	79.7
45°	597.6	354.7	116.9	75.8	64.3
47.5°	559.0	304.6	97.7	60.4	51.4
50°	520.5	257.0	81.0	47.5	41.1
52.5°	483.2	212.0	64.3	38.6	33.4
55°	444.6	168.3	50.1	30.8	27.0
57.5°	406.1	131.1	38.6	25.7	23.1
60°	368.8	98.9	29.6	20.6	19.3
62.5°	330.3	79.7	23.1	16.7	15.4
65°	289.1	61.7	18.0	14.1	12.9
67.5°	251.9	45.0	14.1	11.6	10.3
70°	213.3	30.8	11.6	10.3	9.0
72.5°	176.1	19.3	9.0	7.7	7.7
75°	140.1	12.9	7.7	6.4	5.1
77.5°	106.7	7.7	5.1	5.1	3.9
80°	74.5	5.1	3.9	3.9	3.9
82.5°	46.3	3.9	2.6	2.6	2.6
85°	20.6	1.3	2.6	1.3	1.3
87.5°	3.9	1.3	1.3	1.3	1.3
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	18.64	19.96	19.00	20.27	20.58	4.95	6.27	5.31	6.58	6.89
	3H	21.11	22.28	21.49	22.61	22.97	5.80	6.97	6.18	7.30	7.67
	4H	22.06	23.15	22.47	23.51	23.89	6.07	7.16	6.47	7.51	7.90
	6H	22.75	23.75	23.17	24.12	24.52	6.27	7.27	6.68	7.64	8.03
	8H	22.95	23.90	23.38	24.29	24.69	6.34	7.29	6.77	7.69	8.09
	12H	23.03	23.94	23.46	24.32	24.75	6.37	7.28	6.80	7.66	8.09
4H	2H	18.42	19.51	18.82	19.86	20.25	5.52	6.61	5.92	6.96	7.34
	3H	20.91	21.80	21.32	22.20	22.61	6.55	7.45	6.97	7.85	8.26
	4H	21.85	22.65	22.28	23.07	23.51	6.92	7.72	7.35	8.14	8.58
	6H	22.60	23.30	23.07	23.74	24.21	7.21	7.90	7.68	8.35	8.82
	8H	22.85	23.49	23.32	23.94	24.41	7.32	7.96	7.79	8.41	8.88
	12H	22.98	23.55	23.46	24.03	24.50	7.36	7.93	7.85	8.41	8.89
8H	4H	21.72	22.36	22.19	22.81	23.28	7.29	7.93	7.76	8.38	8.85
	6H	22.46	22.98	22.96	23.48	23.96	7.65	8.18	8.16	8.68	9.16
	8H	22.70	23.17	23.22	23.69	24.18	7.80	8.27	8.32	8.78	9.28
	12H	22.85	23.27	23.37	23.76	24.33	7.88	8.30	8.40	8.79	9.36
12H	4H	21.67	22.24	22.16	22.72	23.20	7.41	7.98	7.90	8.46	8.94
	6H	22.39	22.87	22.92	23.38	23.87	7.77	8.24	8.30	8.76	9.25
	8H	22.66	23.07	23.17	23.57	24.14	7.96	8.37	8.47	8.87	9.44