

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: P1055211

Luminaire Tested: S122R3DR-S485D927-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055211
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S485D927-X4F0-XX-UDD-F-W
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

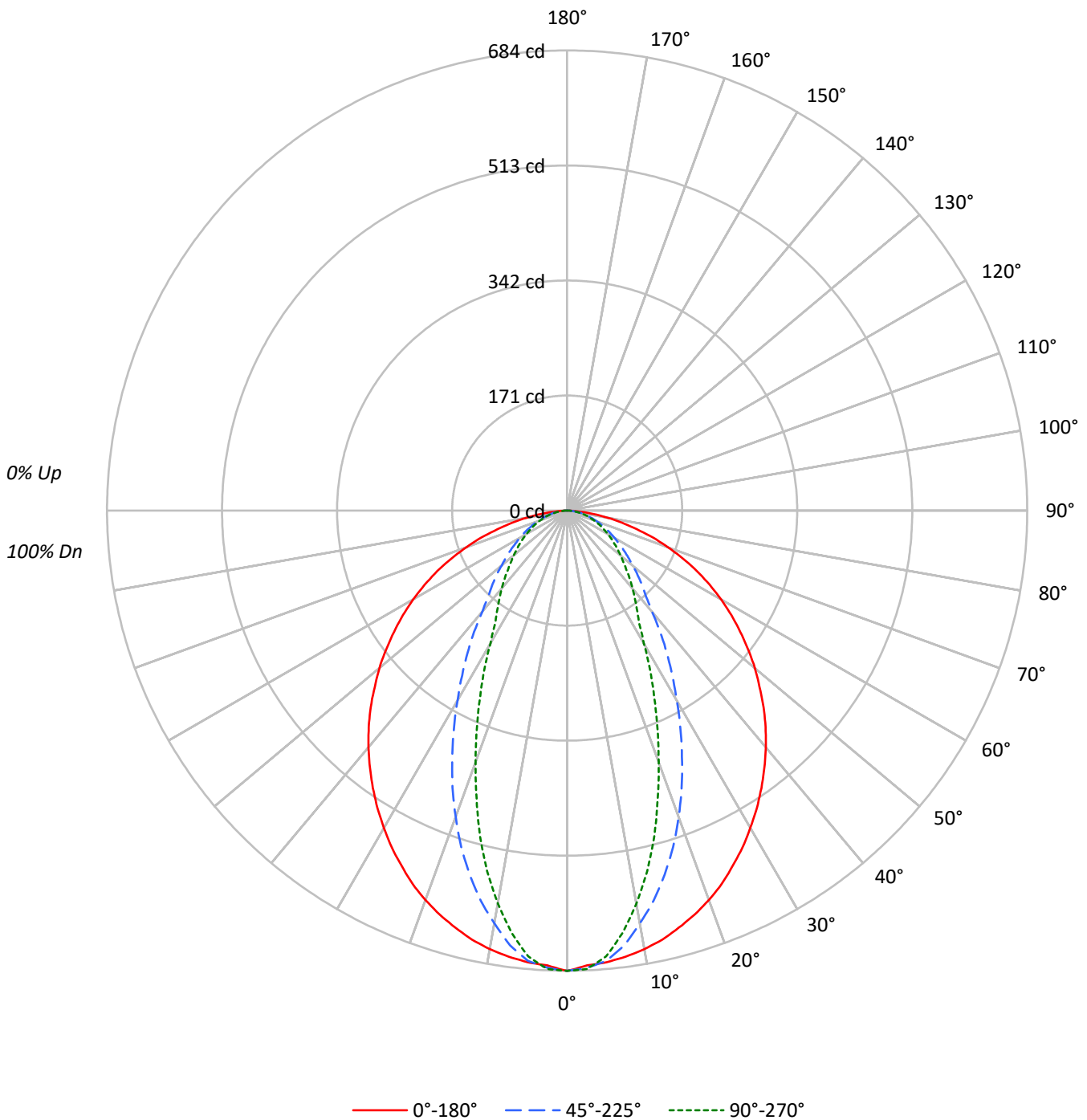
Lumens per Lamp: N/A
Luminaire Lumens: 1034.9 lumens
Efficiency: N/A
Efficacy: 54.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P105211

CATALOG NUMBER: S122R3DR-S485D927-X4F0-XX-UDD-F-W

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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60	58
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12963	12963	12963
5°	12816	12773	12653
10°	12734	11985	11412
15°	12590	10986	9819
20°	12422	9768	8016
25°	12175	8443	6399
30°	11914	7134	4994
35°	11643	5967	4193
40°	11362	4838	3735
45°	11066	4231	3341
50°	10741	3743	3051
55°	10375	3382	2834
60°	10015	3077	2645
65°	9540	2820	2488
70°	8841	2631	2343
75°	7833	2386	2218
80°	6677	2248	2062
85°	4608	2000	1869

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11066 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.7	6.1
10°-20°	158.3	15.3
20°-30°	195.1	18.8
30°-40°	187.1	18.1
40°-50°	161.4	15.6
50°-60°	125.2	12.1
60°-70°	85.7	8.3
70°-80°	46.6	4.5
80°-90°	12.8	1.2
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°	416.0	40.2
0°-40°	603.2	58.3
0°-60°	889.8	86.0
0°-90°	1034.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1034.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	684	684	684	684	684	
5°	674	684	672	663	665	64
15°	642	622	560	514	501	181
25°	582	520	404	330	306	268
35°	503	399	258	192	181	315
45°	413	278	158	130	125	318
55°	314	167	102	89	86	281
65°	213	91	63	57	56	210
75°	107	42	33	31	30	115
85°	21	10	9	9	9	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	684.2	684.2	684.2	684.2	684.2
2.5°	676.8	688.2	680.2	680.2	681.9
5°	673.9	683.6	671.6	663.0	665.3
7.5°	668.7	675.6	651.6	633.3	632.7
10°	661.9	662.5	623.0	599.0	593.2
12.5°	653.3	644.1	593.8	557.8	549.2
15°	641.9	622.4	560.1	514.3	500.6
17.5°	629.8	600.1	524.0	466.8	447.9
20°	616.1	573.2	484.5	419.3	397.6
22.5°	600.7	547.5	445.1	373.6	350.7
25°	582.4	520.0	403.9	329.5	306.1
27.5°	564.6	492.0	364.4	290.6	266.6
30°	544.6	461.7	326.1	253.4	228.3
32.5°	524.6	430.8	290.6	218.0	199.1
35°	503.4	399.3	258.0	192.2	181.3
37.5°	481.7	368.4	227.1	175.1	165.3
40°	459.4	337.5	195.6	158.5	151.0
42.5°	436.5	307.2	173.9	144.7	137.9
45°	413.0	278.0	157.9	130.4	124.7
47.5°	387.9	248.8	142.4	118.4	113.3
50°	364.4	220.8	127.0	107.5	103.5
52.5°	339.2	193.4	114.4	97.8	94.4
55°	314.1	167.0	102.4	88.7	85.8
57.5°	289.5	141.9	91.0	80.1	77.8
60°	264.3	121.9	81.2	72.1	69.8
62.5°	238.6	105.8	72.1	64.6	62.4
65°	212.8	91.0	62.9	57.2	55.5
67.5°	185.9	76.7	54.9	50.3	49.2
70°	159.6	64.1	47.5	43.5	42.3
72.5°	133.9	52.1	40.0	37.2	36.0
75°	107.0	41.8	32.6	30.9	30.3
77.5°	83.5	32.6	26.3	25.2	24.6
80°	61.2	24.0	20.6	19.5	18.9
82.5°	40.6	16.6	14.9	14.3	13.7
85°	21.2	10.3	9.2	9.2	8.6
87.5°	6.9	4.6	4.6	4.6	4.0
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	18.51	19.98	18.88	20.29	20.61	13.32	14.78	13.68	15.10	15.41
	3H	20.84	22.16	21.22	22.49	22.85	14.96	16.28	15.34	16.61	16.97
	4H	21.74	22.97	22.14	23.32	23.70	15.60	16.83	16.00	17.18	17.56
	6H	22.40	23.54	22.81	23.91	24.30	16.09	17.23	16.51	17.60	17.99
	8H	22.61	23.69	23.03	24.08	24.48	16.26	17.35	16.69	17.74	18.14
	12H	22.72	23.76	23.15	24.14	24.57	16.38	17.42	16.81	17.80	18.23
4H	2H	18.53	19.76	18.93	20.11	20.49	14.03	15.27	14.43	15.61	15.99
	3H	20.94	21.96	21.35	22.37	22.77	15.88	16.90	16.29	17.30	17.71
	4H	21.87	22.79	22.30	23.21	23.65	16.63	17.55	17.06	17.97	18.40
	6H	22.65	23.45	23.11	23.89	24.35	17.24	18.04	17.70	18.49	18.95
	8H	22.92	23.67	23.38	24.11	24.58	17.46	18.21	17.92	18.65	19.12
	12H	23.09	23.76	23.58	24.24	24.71	17.62	18.29	18.10	18.77	19.24
8H	4H	21.86	22.61	22.33	23.06	23.52	17.00	17.75	17.47	18.20	18.67
	6H	22.67	23.29	23.17	23.78	24.26	17.74	18.36	18.24	18.85	19.33
	8H	22.97	23.52	23.49	24.04	24.52	18.04	18.59	18.56	19.10	19.59
	12H	23.20	23.69	23.71	24.18	24.75	18.28	18.77	18.80	19.27	19.83
12H	4H	21.84	22.51	22.33	22.99	23.46	17.06	17.73	17.55	18.21	18.68
	6H	22.65	23.20	23.16	23.71	24.20	17.83	18.39	18.35	18.90	19.38
	8H	22.98	23.47	23.49	23.96	24.53	18.19	18.68	18.70	19.17	19.73