

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: P1217314

Luminaire Tested: S122DRP-S290D927-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217314
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G3-2511-596-2)
Test Lab: INNOVATION CENTER
Issue Date: 4/9/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DRP-S290D927-X4F0-XX-UDD-G-W
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

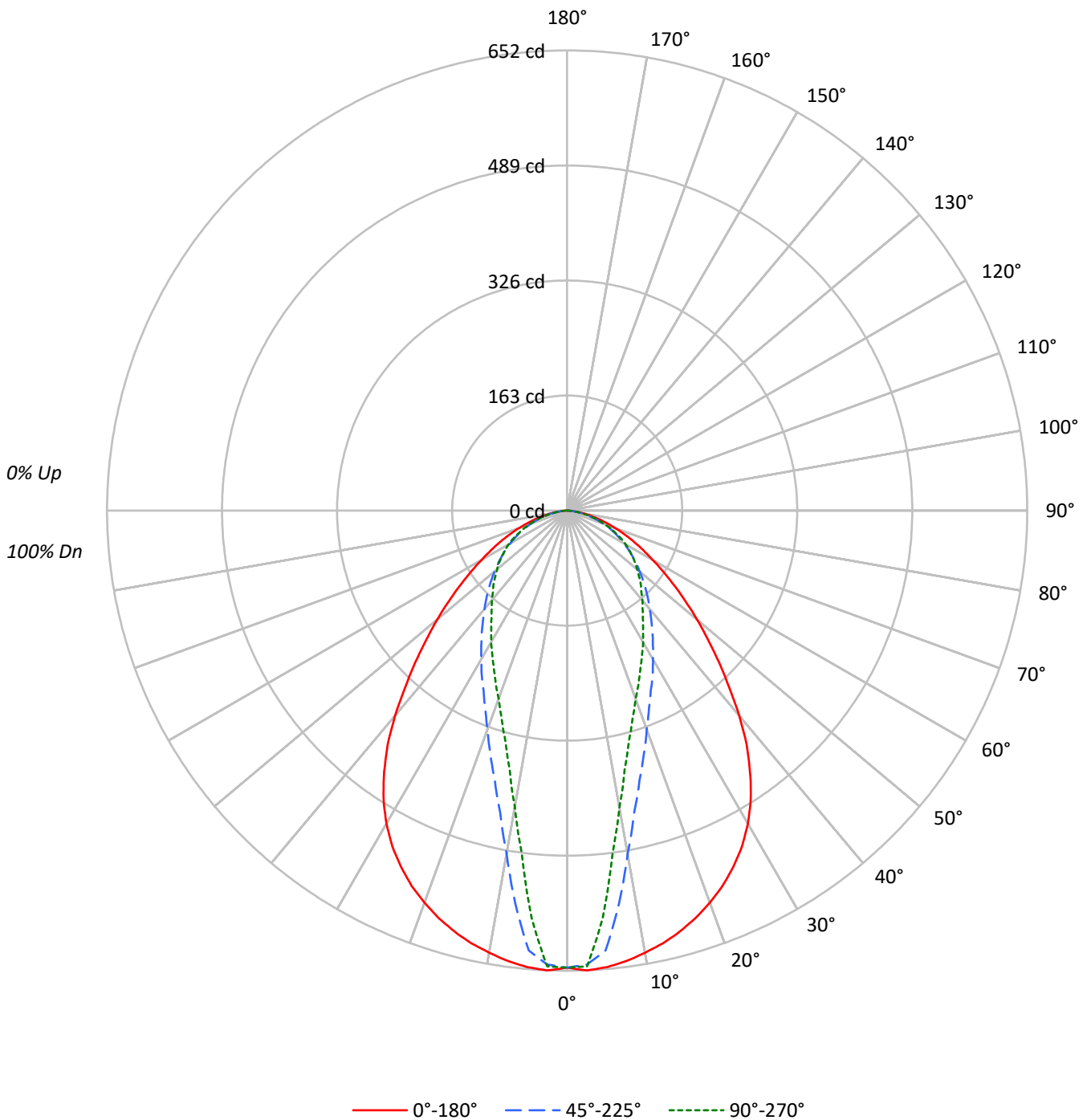
Lumens per Lamp: N/A
Luminaire Lumens: 870.1 lumens
Efficiency: N/A
Efficacy: 69.1 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 12.6
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	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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89					87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77					75				
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67					65				
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59					57				
5	80	69	60	54	78	67	60	54	65	59	53	63	58	53	62	57	52					50				
6	75	63	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	44	68	57	49	44	55	48	43	54	48	43	52	47	43					41				
8	65	53	45	40	64	52	45	40	51	44	39	50	44	39	49	43	39					37				
9	62	49	41	36	60	49	41	36	47	41	36	46	40	36	45	40	36					34				
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	43	37	33					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12267	12267	12267
5°	12347	11896	11017
10°	12235	9500	8213
15°	12110	7765	6632
20°	11918	6647	5720
25°	11644	5868	5134
30°	11201	5320	4708
35°	10452	4876	4327
40°	9373	4504	4101
45°	8153	4209	3955
50°	7077	3953	3814
55°	6124	3739	3716
60°	5312	3520	3622
65°	4649	3299	3421
70°	4005	3030	3141
75°	3338	2672	2767
80°	2619	2171	2106
85°	1609	1391	1391

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8153 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.7	6.4
10°-20°	122.9	14.1
20°-30°	150.8	17.3
30°-40°	155.9	17.9
40°-50°	140.8	16.2
50°-60°	114.1	13.1
60°-70°	80.0	9.2
70°-80°	41.2	4.7
80°-90°	8.7	1.0
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°	329.5	37.9
0°-40°	485.4	55.8
0°-60°	740.2	85.1
0°-90°	870.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	870.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	648	648	648	648	648	
5°	649	648	626	598	579	62
15°	617	520	396	353	338	174
25°	557	370	281	254	246	256
35°	452	273	211	193	187	281
45°	304	197	157	148	148	235
55°	185	135	113	112	112	167
65°	104	83	74	75	76	104
75°	46	39	36	38	38	49
85°	7	6	6	6	6	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	647.5	647.5	647.5	647.5	647.5
2.5°	652.2	649.9	643.8	649.5	646.5
5°	649.2	647.8	625.5	597.5	579.3
7.5°	643.8	639.0	562.0	509.0	491.1
10°	636.0	612.4	493.8	444.5	426.9
12.5°	627.9	572.2	438.8	392.5	376.6
15°	617.4	520.5	395.9	353.0	338.1
17.5°	605.3	475.6	361.7	320.5	308.7
20°	591.1	436.7	329.7	293.5	283.7
22.5°	575.5	404.0	303.0	273.6	264.5
25°	557.0	369.8	280.7	254.0	245.6
27.5°	536.4	343.8	262.1	237.1	230.0
30°	512.0	318.5	243.2	220.9	215.2
32.5°	484.4	294.9	226.3	206.7	200.0
35°	451.9	273.2	210.8	192.9	187.1
37.5°	417.5	252.0	195.9	180.4	175.6
40°	379.0	233.4	182.1	168.2	165.8
42.5°	339.5	214.8	169.6	157.7	155.7
45°	304.3	196.9	157.1	148.3	147.6
47.5°	270.2	180.7	145.6	138.8	138.1
50°	240.1	163.8	134.1	129.7	129.4
52.5°	211.4	149.0	123.3	120.9	121.6
55°	185.4	134.8	113.2	111.8	112.5
57.5°	161.5	121.6	103.0	103.4	104.4
60°	140.2	108.1	92.9	94.2	95.6
62.5°	121.6	95.6	83.1	85.1	86.5
65°	103.7	83.1	73.6	75.3	76.3
67.5°	87.8	71.3	64.2	66.2	66.5
70°	72.3	60.5	54.7	56.7	56.7
72.5°	58.8	49.3	45.6	46.6	46.9
75°	45.6	39.2	36.5	37.5	37.8
77.5°	34.5	29.7	27.7	28.7	28.4
80°	24.0	20.9	19.9	19.6	19.3
82.5°	14.9	13.2	12.2	12.5	12.2
85°	7.4	6.4	6.4	6.4	6.4
87.5°	2.4	2.4	2.4	2.4	2.4
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	17.21	18.71	17.57	19.02	19.34	15.71	17.21	16.07	17.52	17.84
	3H	18.80	20.14	19.17	20.47	20.83	17.42	18.76	17.80	19.09	19.45
	4H	19.32	20.58	19.72	20.93	21.31	18.00	19.26	18.40	19.61	19.99
	6H	19.65	20.81	20.06	21.18	21.57	18.35	19.51	18.76	19.88	20.27
	8H	19.72	20.83	20.15	21.22	21.62	18.42	19.53	18.85	19.92	20.32
	12H	19.75	20.81	20.18	21.19	21.62	18.45	19.52	18.88	19.90	20.33
4H	2H	17.52	18.78	17.92	19.13	19.51	16.27	17.53	16.67	17.88	18.26
	3H	19.30	20.35	19.71	20.75	21.15	18.18	19.23	18.59	19.63	20.03
	4H	19.93	20.87	20.36	21.29	21.73	18.88	19.82	19.31	20.24	20.67
	6H	20.36	21.18	20.82	21.63	22.09	19.33	20.15	19.79	20.59	21.05
	8H	20.47	21.23	20.93	21.68	22.15	19.43	20.20	19.90	20.64	21.11
	12H	20.52	21.20	21.00	21.68	22.15	19.49	20.17	19.97	20.65	21.12
8H	4H	20.08	20.84	20.54	21.29	21.76	19.12	19.88	19.58	20.33	20.79
	6H	20.58	21.22	21.08	21.71	22.18	19.66	20.29	20.15	20.78	21.26
	8H	20.73	21.30	21.25	21.81	22.30	19.81	20.37	20.32	20.88	21.37
	12H	20.82	21.32	21.33	21.81	22.38	19.90	20.40	20.41	20.89	21.46
12H	4H	20.08	20.76	20.56	21.24	21.71	19.13	19.81	19.61	20.29	20.76
	6H	20.59	21.15	21.10	21.66	22.15	19.68	20.24	20.19	20.75	21.24
	8H	20.77	21.27	21.28	21.76	22.33	19.87	20.37	20.38	20.86	21.43