

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: P1217269

Luminaire Tested: S122DRP-H290D927-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217269
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-H290D927-X4F0-XX-UDD-G-W
Description: DEFINE 2, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

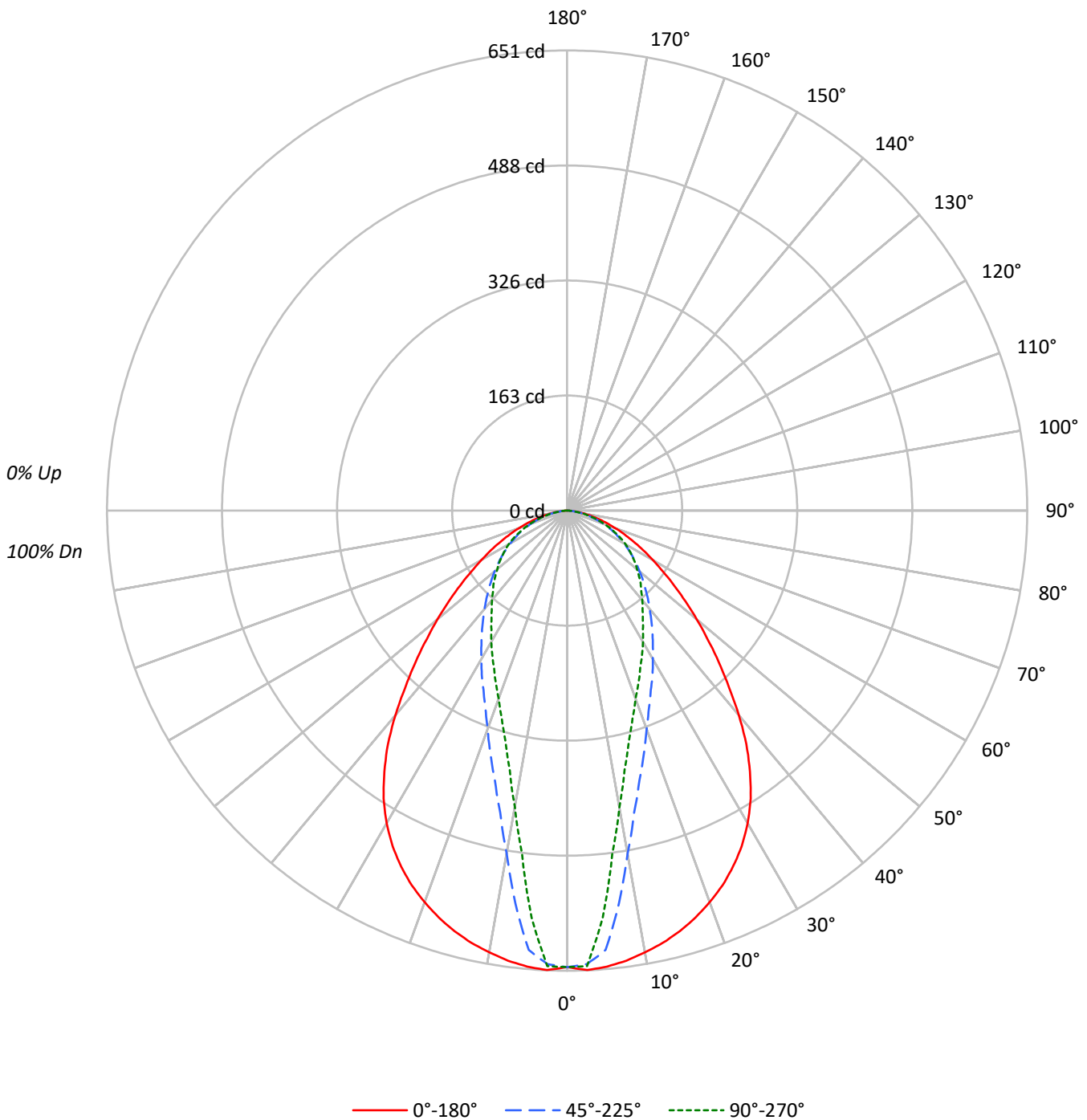
Lumens per Lamp: N/A
Luminaire Lumens: 868.0 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.5 / 0.8
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	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°	12237	12237	12237
5°	12316	11867	10989
10°	12205	9477	8194
15°	12080	7746	6616
20°	11887	6629	5706
25°	11615	5853	5122
30°	11175	5307	4695
35°	10426	4862	4318
40°	9349	4491	4091
45°	8135	4199	3944
50°	7062	3944	3802
55°	6111	3729	3706
60°	5297	3513	3615
65°	4635	3295	3412
70°	3994	3025	3135
75°	3331	2665	2760
80°	2608	2171	2095
85°	1609	1391	1391

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8135 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.6	6.4
10°-20°	122.6	14.1
20°-30°	150.4	17.3
30°-40°	155.5	17.9
40°-50°	140.4	16.2
50°-60°	113.8	13.1
60°-70°	79.8	9.2
70°-80°	41.1	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°	328.7	37.9
0°-40°	484.2	55.8
0°-60°	738.4	85.1
0°-90°	868.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	868.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	646	646	646	646	646	
5°	648	646	624	596	578	61
15°	616	519	395	352	337	174
25°	556	369	280	253	245	255
35°	451	273	210	192	187	280
45°	304	196	157	148	147	235
55°	185	134	113	112	112	167
65°	103	83	74	75	76	103
75°	46	39	36	37	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°	645.9	645.9	645.9	645.9	645.9
2.5°	650.6	648.3	642.2	647.9	644.9
5°	647.6	646.2	624.0	596.0	577.8
7.5°	642.2	637.5	560.7	507.8	489.9
10°	634.4	610.9	492.6	443.4	425.9
12.5°	626.4	570.8	437.7	391.5	375.7
15°	615.9	519.2	394.9	352.1	337.3
17.5°	603.8	474.4	360.9	319.8	308.0
20°	589.6	435.7	328.8	292.8	283.0
22.5°	574.1	403.0	302.2	272.9	263.8
25°	555.6	368.9	280.0	253.4	245.0
27.5°	535.1	343.0	261.5	236.5	229.5
30°	510.8	317.7	242.6	220.4	214.6
32.5°	483.2	294.1	225.7	206.2	199.5
35°	450.8	272.6	210.2	192.4	186.7
37.5°	416.5	251.4	195.4	179.9	175.2
40°	378.0	232.8	181.6	167.8	165.4
42.5°	338.6	214.3	169.1	157.3	155.3
45°	303.6	196.4	156.7	147.9	147.2
47.5°	269.5	180.3	145.2	138.5	137.8
50°	239.6	163.4	133.8	129.4	129.0
52.5°	210.9	148.6	123.0	120.6	121.3
55°	185.0	134.4	112.9	111.5	112.2
57.5°	161.1	121.3	102.8	103.1	104.1
60°	139.8	107.8	92.7	94.0	95.4
62.5°	121.3	95.4	82.9	84.9	86.3
65°	103.4	82.9	73.5	75.1	76.1
67.5°	87.6	71.1	64.0	66.0	66.4
70°	72.1	60.3	54.6	56.6	56.6
72.5°	58.6	49.2	45.5	46.5	46.8
75°	45.5	39.1	36.4	37.4	37.7
77.5°	34.4	29.7	27.6	28.6	28.3
80°	23.9	20.9	19.9	19.5	19.2
82.5°	14.8	13.1	12.1	12.5	12.1
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	17.20	18.70	17.56	19.01	19.33	15.70	17.20	16.06	17.51	17.82
	3H	18.79	20.13	19.16	20.46	20.82	17.41	18.76	17.79	19.08	19.45
	4H	19.31	20.57	19.71	20.92	21.30	17.99	19.25	18.39	19.60	19.98
	6H	19.64	20.80	20.05	21.17	21.56	18.34	19.50	18.75	19.87	20.26
	8H	19.71	20.82	20.14	21.21	21.61	18.41	19.52	18.84	19.91	20.31
	12H	19.74	20.80	20.17	21.18	21.61	18.44	19.50	18.87	19.89	20.32
4H	2H	17.51	18.77	17.91	19.12	19.50	16.26	17.52	16.66	17.87	18.25
	3H	19.29	20.34	19.70	20.74	21.14	18.17	19.22	18.58	19.62	20.02
	4H	19.92	20.86	20.35	21.28	21.72	18.87	19.81	19.30	20.23	20.67
	6H	20.35	21.17	20.81	21.62	22.08	19.32	20.14	19.78	20.58	21.04
	8H	20.46	21.23	20.92	21.67	22.14	19.42	20.19	19.89	20.63	21.10
	12H	20.51	21.19	20.99	21.67	22.14	19.48	20.16	19.96	20.64	21.11
8H	4H	20.07	20.83	20.53	21.28	21.75	19.11	19.87	19.57	20.32	20.79
	6H	20.58	21.21	21.07	21.70	22.18	19.65	20.28	20.14	20.77	21.25
	8H	20.72	21.29	21.24	21.80	22.29	19.80	20.36	20.31	20.87	21.36
	12H	20.81	21.31	21.32	21.80	22.37	19.89	20.39	20.40	20.88	21.45
12H	4H	20.07	20.75	20.55	21.23	21.70	19.12	19.80	19.60	20.28	20.75
	6H	20.58	21.14	21.09	21.65	22.14	19.67	20.23	20.18	20.74	21.23
	8H	20.76	21.26	21.27	21.75	22.32	19.86	20.36	20.37	20.85	21.42