

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: P1217404

Luminaire Tested: S124DRP-S290D927-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217404
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2509-563-3)
Test Lab: INNOVATION CENTER
Issue Date: 4/9/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DRP-S290D927-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

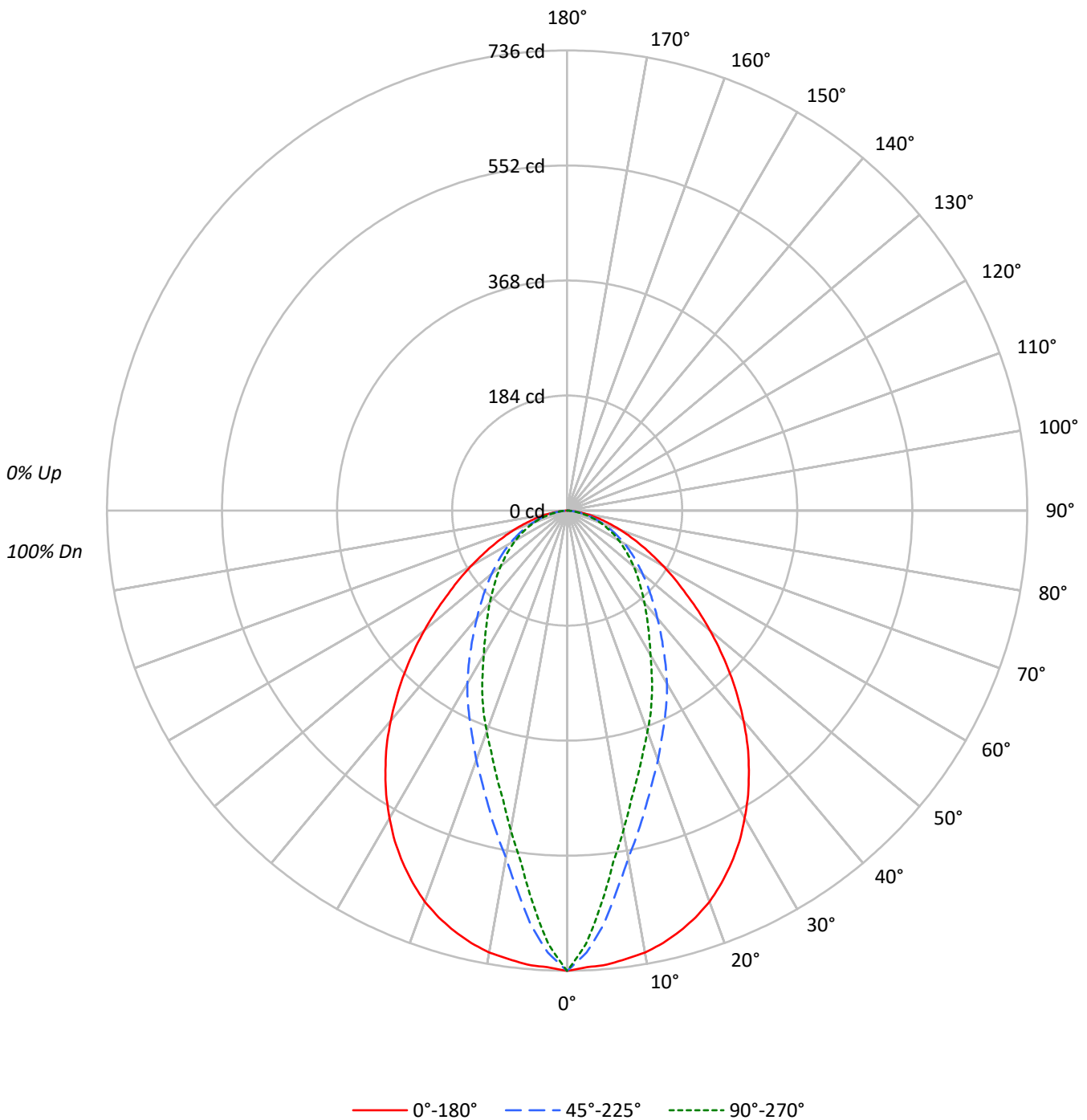
Lumens per Lamp: N/A
Luminaire Lumens: 1032.5 lumens
Efficiency: N/A
Efficacy: 81.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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	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	94	92	92	90	89	87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	62	84	75	67	62	72	66	61	70	64	60	68	63	59	57
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36	34
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6509	6509	6509
5°	6471	5904	5596
10°	6443	5061	4657
15°	6376	4466	4005
20°	6264	3996	3538
25°	6066	3596	3134
30°	5798	3260	2721
35°	5469	2890	2435
40°	5066	2589	2218
45°	4605	2354	2047
50°	4102	2166	1913
55°	3578	2013	1790
60°	3140	1874	1685
65°	2720	1730	1573
70°	2355	1567	1450
75°	1961	1383	1274
80°	1517	1120	1039
85°	954	761	690

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4605 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.6	6.0
10°-20°	146.4	14.2
20°-30°	187.1	18.1
30°-40°	190.0	18.4
40°-50°	168.4	16.3
50°-60°	132.3	12.8
60°-70°	90.1	8.7
70°-80°	46.3	4.5
80°-90°	10.3	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°	395.1	38.3
0°-40°	585.1	56.7
0°-60°	885.8	85.8
0°-90°	1032.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1032.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	736	736	736	736	736	
5°	729	711	665	640	630	69
15°	697	582	488	448	438	196
25°	622	456	369	333	321	286
35°	507	345	268	234	226	316
45°	368	249	188	169	164	284
55°	232	166	131	119	116	210
65°	130	100	83	77	75	130
75°	57	47	40	39	37	62
85°	9	9	8	8	7	13
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	736.2	736.2	736.2	736.2	736.2
2.5°	731.0	732.0	707.7	698.9	693.7
5°	729.1	710.6	665.2	639.6	630.5
7.5°	723.2	683.0	611.4	576.0	566.6
10°	717.7	651.6	563.7	528.7	518.7
12.5°	708.6	616.9	525.5	485.3	473.3
15°	696.6	581.6	487.9	447.7	437.6
17.5°	682.4	547.8	453.8	415.3	404.2
20°	665.8	516.7	424.7	385.1	376.0
22.5°	645.1	485.9	394.8	359.2	349.1
25°	621.8	455.8	368.6	333.2	321.3
27.5°	596.8	426.6	344.3	305.0	292.4
30°	567.9	398.7	319.3	278.1	266.5
32.5°	538.8	371.2	293.0	254.1	244.7
35°	506.7	345.2	267.8	233.7	225.6
37.5°	474.3	320.3	245.1	215.2	208.1
40°	438.9	296.0	224.3	198.1	192.2
42.5°	403.6	271.7	205.5	182.8	177.3
45°	368.3	248.6	188.3	168.9	163.7
47.5°	332.6	225.9	172.5	155.3	151.1
50°	298.2	204.6	157.5	142.6	139.1
52.5°	264.8	184.5	143.3	130.6	126.7
55°	232.1	165.7	130.6	119.0	116.1
57.5°	204.2	148.1	118.0	107.9	105.7
60°	177.6	131.3	106.0	97.6	95.3
62.5°	152.7	115.7	94.0	87.2	85.6
65°	130.0	100.5	82.7	76.8	75.2
67.5°	109.2	86.6	71.0	66.8	65.5
70°	91.1	72.6	60.6	57.1	56.1
72.5°	72.9	59.3	50.2	47.7	46.7
75°	57.4	47.3	40.5	38.6	37.3
77.5°	43.1	36.0	31.1	29.5	28.5
80°	29.8	25.6	22.0	21.4	20.4
82.5°	18.8	16.2	14.3	13.9	13.0
85°	9.4	8.8	7.5	7.5	6.8
87.5°	3.2	2.9	2.9	2.9	2.6
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	15.41	16.90	15.78	17.21	17.53	12.74	14.22	13.10	14.54	14.85
	3H	17.00	18.34	17.38	18.67	19.03	14.34	15.67	14.71	16.00	16.36
	4H	17.53	18.78	17.93	19.13	19.51	14.89	16.14	15.29	16.49	16.87
	6H	17.87	19.02	18.28	19.39	19.78	15.25	16.40	15.66	16.77	17.16
	8H	17.94	19.04	18.37	19.43	19.83	15.34	16.43	15.76	16.82	17.23
	12H	17.97	19.02	18.40	19.40	19.83	15.37	16.42	15.80	16.81	17.24
4H	2H	15.64	16.89	16.04	17.24	17.62	13.41	14.66	13.81	15.01	15.39
	3H	17.42	18.46	17.83	18.86	19.26	15.20	16.24	15.61	16.64	17.04
	4H	18.06	19.00	18.50	19.41	19.85	15.87	16.80	16.30	17.21	17.65
	6H	18.51	19.32	18.97	19.76	20.22	16.32	17.13	16.78	17.58	18.04
	8H	18.62	19.38	19.09	19.82	20.29	16.44	17.19	16.90	17.64	18.11
	12H	18.68	19.35	19.16	19.83	20.30	16.50	17.17	16.98	17.65	18.12
8H	4H	18.17	18.92	18.63	19.37	19.84	16.16	16.92	16.63	17.37	17.83
	6H	18.69	19.31	19.18	19.80	20.28	16.71	17.34	17.21	17.83	18.31
	8H	18.84	19.40	19.36	19.91	20.40	16.88	17.44	17.40	17.95	18.44
	12H	18.94	19.43	19.45	19.93	20.49	16.99	17.48	17.50	17.97	18.54
12H	4H	18.16	18.83	18.64	19.31	19.78	16.19	16.86	16.67	17.34	17.81
	6H	18.68	19.24	19.19	19.75	20.24	16.75	17.31	17.27	17.82	18.31
	8H	18.87	19.36	19.38	19.86	20.42	16.96	17.46	17.47	17.95	18.52