

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: P1217359

Luminaire Tested: S124DRP-H290D927-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217359
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-H290D927-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

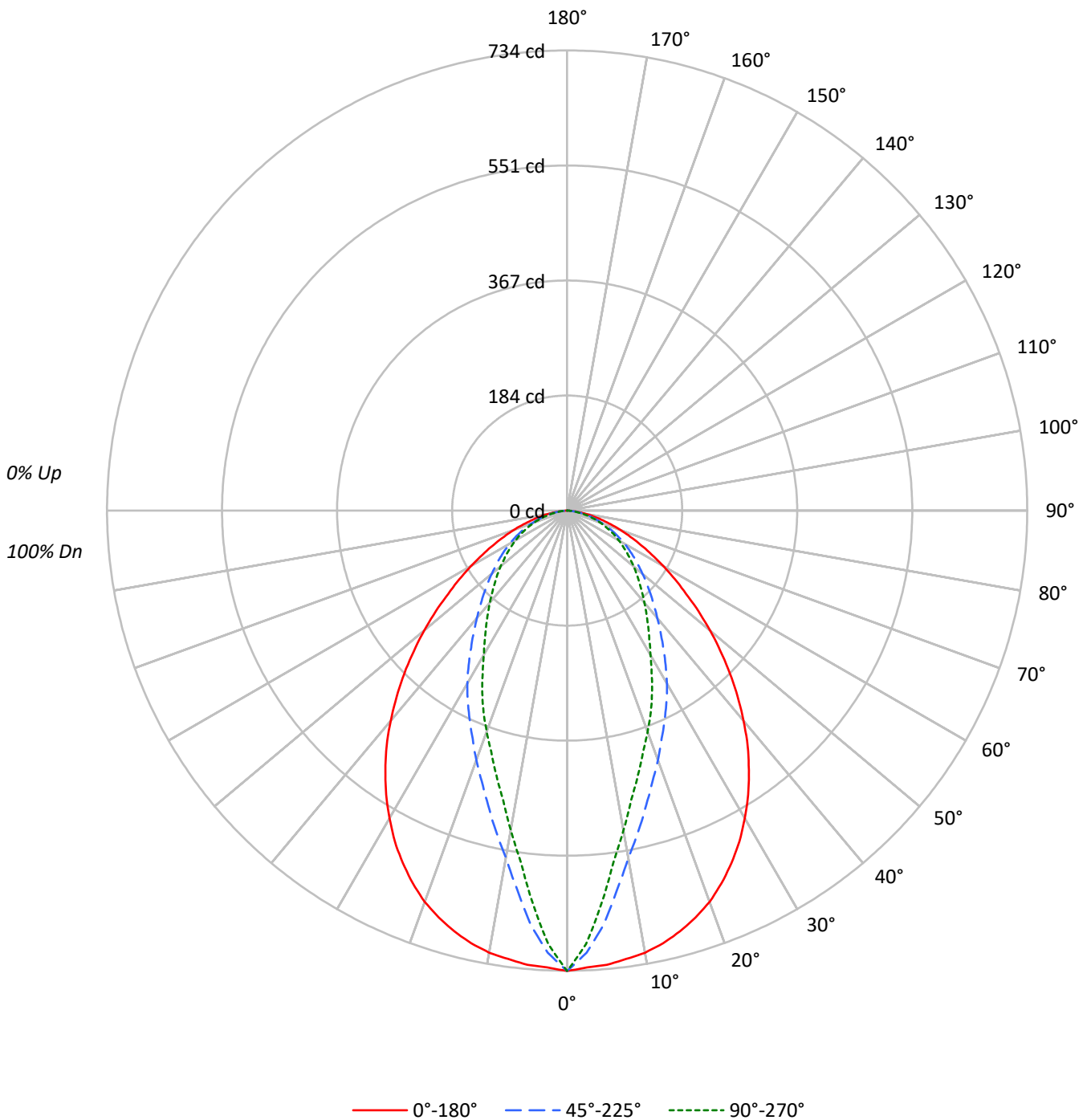
Lumens per Lamp: N/A
Luminaire Lumens: 1029.9 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	6493	6493	6493
5°	6455	5890	5582
10°	6428	5048	4645
15°	6361	4455	3996
20°	6249	3986	3529
25°	6050	3587	3127
30°	5785	3252	2714
35°	5455	2883	2430
40°	5053	2583	2214
45°	4594	2349	2042
50°	4092	2162	1908
55°	3568	2009	1785
60°	3133	1869	1682
65°	2713	1726	1569
70°	2350	1564	1445
75°	1954	1380	1271
80°	1517	1120	1039
85°	954	751	690

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4594 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.5	6.0
10°-20°	146.0	14.2
20°-30°	186.6	18.1
30°-40°	189.5	18.4
40°-50°	168.0	16.3
50°-60°	132.0	12.8
60°-70°	89.9	8.7
70°-80°	46.1	4.5
80°-90°	10.2	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°	394.1	38.3
0°-40°	583.6	56.7
0°-60°	883.7	85.8
0°-90°	1029.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1029.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	734	734	734	734	734	
5°	727	709	664	638	629	69
15°	695	580	487	447	437	196
25°	620	455	368	332	320	285
35°	505	344	267	233	225	315
45°	367	248	188	168	163	283
55°	232	165	130	119	116	209
65°	130	100	82	77	75	130
75°	57	47	40	38	37	61
85°	9	9	7	7	7	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	734.4	734.4	734.4	734.4	734.4
2.5°	729.2	730.2	705.9	697.2	692.0
5°	727.3	708.8	663.6	638.0	629.0
7.5°	721.4	681.3	609.9	574.6	565.3
10°	716.0	650.0	562.3	527.4	517.4
12.5°	706.9	615.4	524.2	484.1	472.1
15°	694.9	580.1	486.7	446.6	436.6
17.5°	680.7	546.5	452.7	414.2	403.2
20°	664.2	515.5	423.6	384.2	375.1
22.5°	643.5	484.7	393.9	358.3	348.3
25°	620.2	454.7	367.7	332.4	320.5
27.5°	595.3	425.6	343.4	304.3	291.7
30°	566.6	397.8	318.5	277.5	265.8
32.5°	537.4	370.3	292.3	253.5	244.1
35°	505.4	344.4	267.1	233.2	225.1
37.5°	473.1	319.5	244.5	214.7	207.6
40°	437.8	295.2	223.8	197.6	191.8
42.5°	402.6	271.0	205.0	182.4	176.9
45°	367.4	248.0	187.9	168.5	163.3
47.5°	331.8	225.4	172.0	154.9	150.7
50°	297.5	204.0	157.2	142.3	138.7
52.5°	264.2	184.0	142.9	130.3	126.4
55°	231.5	165.2	130.3	118.7	115.8
57.5°	203.7	147.8	117.7	107.7	105.4
60°	177.2	131.0	105.7	97.3	95.1
62.5°	152.3	115.4	93.8	87.0	85.4
65°	129.7	100.2	82.5	76.6	75.0
67.5°	109.0	86.3	70.8	66.6	65.3
70°	90.9	72.4	60.5	56.9	55.9
72.5°	72.8	59.2	50.1	47.5	46.6
75°	57.2	47.2	40.4	38.5	37.2
77.5°	43.0	35.9	31.0	29.4	28.5
80°	29.8	25.5	22.0	21.3	20.4
82.5°	18.8	16.2	14.2	13.9	12.9
85°	9.4	8.7	7.4	7.4	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	15.40	16.89	15.77	17.21	17.52	12.73	14.22	13.09	14.53	14.84
	3H	17.00	18.33	17.37	18.66	19.02	14.33	15.66	14.71	15.99	16.35
	4H	17.53	18.78	17.93	19.13	19.50	14.89	16.14	15.29	16.48	16.86
	6H	17.86	19.01	18.27	19.38	19.77	15.24	16.40	15.65	16.76	17.15
	8H	17.94	19.03	18.36	19.42	19.83	15.33	16.43	15.76	16.82	17.22
	12H	17.97	19.02	18.40	19.40	19.83	15.36	16.42	15.80	16.80	17.23
4H	2H	15.63	16.88	16.03	17.23	17.61	13.41	14.66	13.81	15.01	15.38
	3H	17.42	18.45	17.83	18.85	19.26	15.19	16.23	15.60	16.63	17.03
	4H	18.06	18.99	18.49	19.41	19.84	15.86	16.79	16.29	17.20	17.64
	6H	18.50	19.31	18.96	19.76	20.22	16.31	17.12	16.77	17.57	18.03
	8H	18.62	19.37	19.08	19.82	20.28	16.43	17.19	16.89	17.63	18.10
	12H	18.67	19.35	19.16	19.83	20.30	16.49	17.16	16.97	17.64	18.11
8H	4H	18.16	18.92	18.62	19.36	19.83	16.16	16.91	16.62	17.36	17.82
	6H	18.68	19.30	19.18	19.79	20.27	16.70	17.33	17.20	17.82	18.30
	8H	18.83	19.39	19.35	19.90	20.39	16.87	17.43	17.39	17.94	18.43
	12H	18.94	19.43	19.45	19.92	20.49	16.98	17.47	17.49	17.96	18.53
12H	4H	18.15	18.83	18.63	19.30	19.78	16.18	16.85	16.66	17.33	17.80
	6H	18.67	19.23	19.19	19.74	20.23	16.74	17.30	17.26	17.81	18.30
	8H	18.87	19.36	19.38	19.85	20.42	16.95	17.45	17.47	17.94	18.51