

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: P1217408

Luminaire Tested: S124DRP-S290D950-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217408
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-S290D950-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

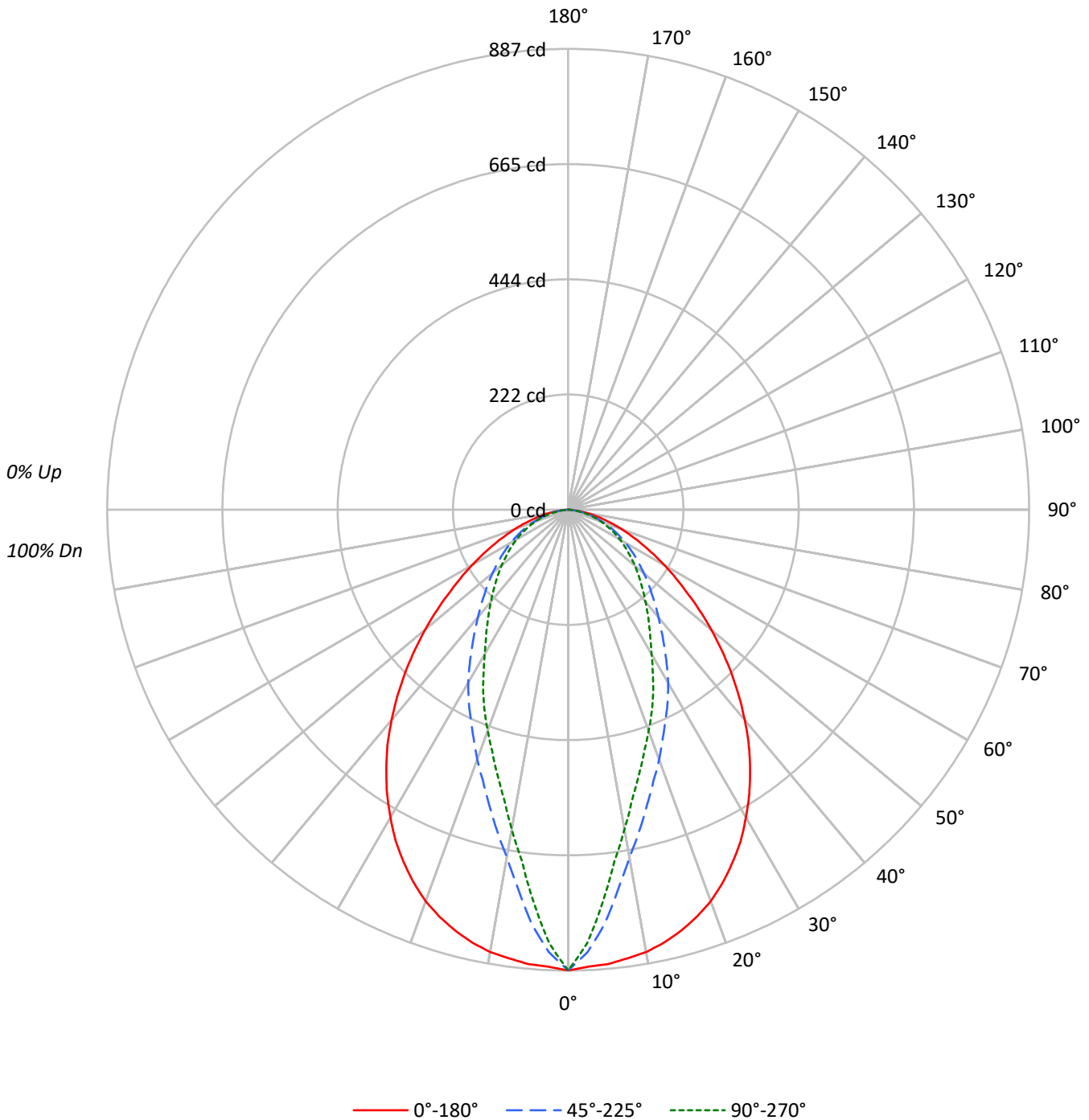
Lumens per Lamp: N/A
Luminaire Lumens: 1243.4 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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°	7839	7839	7839
5°	7792	7110	6739
10°	7759	6095	5608
15°	7679	5378	4824
20°	7545	4812	4260
25°	7305	4330	3774
30°	6983	3925	3276
35°	6586	3481	2933
40°	6101	3117	2672
45°	5545	2836	2464
50°	4941	2609	2304
55°	4308	2425	2155
60°	3782	2258	2030
65°	3274	2082	1895
70°	2836	1887	1745
75°	2360	1667	1534
80°	1828	1349	1253
85°	1146	913	832

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5545 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.2	6.0
10°-20°	176.3	14.2
20°-30°	225.3	18.1
30°-40°	228.8	18.4
40°-50°	202.8	16.3
50°-60°	159.4	12.8
60°-70°	108.5	8.7
70°-80°	55.7	4.5
80°-90°	12.3	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°	475.8	38.3
0°-40°	704.6	56.7
0°-60°	1066.8	85.8
0°-90°	1243.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1243.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	887	887	887	887	887	
5°	878	856	801	770	759	83
15°	839	700	588	539	527	236
25°	749	549	444	401	387	344
35°	610	416	322	282	272	381
45°	444	299	227	203	197	342
55°	280	200	157	143	140	252
65°	156	121	100	92	91	157
75°	69	57	49	46	45	74
85°	11	10	9	9	8	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	886.6	886.6	886.6	886.6	886.6
2.5°	880.3	881.5	852.2	841.7	835.4
5°	878.0	855.7	801.1	770.2	759.3
7.5°	871.0	822.5	736.3	693.7	682.4
10°	864.3	784.7	678.9	636.7	624.6
12.5°	853.4	742.9	632.8	584.4	570.0
15°	838.9	700.4	587.5	539.1	527.0
17.5°	821.8	659.8	546.5	500.1	486.8
20°	801.9	622.3	511.4	463.8	452.8
22.5°	776.9	585.2	475.5	432.5	420.4
25°	748.8	548.9	443.9	401.3	386.9
27.5°	718.7	513.7	414.6	367.4	352.1
30°	684.0	480.2	384.5	335.0	320.9
32.5°	648.8	447.0	352.9	306.1	294.7
35°	610.2	415.8	322.5	281.5	271.7
37.5°	571.1	385.7	295.1	259.2	250.6
40°	528.6	356.4	270.1	238.5	231.5
42.5°	486.0	327.1	247.5	220.2	213.5
45°	443.5	299.4	226.8	203.4	197.1
47.5°	400.5	272.1	207.7	187.0	181.9
50°	359.2	246.3	189.7	171.8	167.5
52.5°	318.9	222.1	172.6	157.3	152.6
55°	279.5	199.5	157.3	143.3	139.8
57.5°	245.9	178.4	142.1	130.0	127.3
60°	213.9	158.1	127.7	117.5	114.8
62.5°	183.9	139.4	113.2	105.0	103.1
65°	156.5	121.0	99.5	92.5	90.6
67.5°	131.6	104.2	85.5	80.4	78.9
70°	109.7	87.4	73.0	68.7	67.5
72.5°	87.8	71.4	60.5	57.4	56.2
75°	69.1	57.0	48.8	46.5	44.9
77.5°	51.9	43.3	37.5	35.5	34.4
80°	35.9	30.8	26.5	25.8	24.6
82.5°	22.6	19.5	17.2	16.8	15.6
85°	11.3	10.5	9.0	9.0	8.2
87.5°	3.9	3.5	3.5	3.5	3.1
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	16.06	17.55	16.42	17.86	18.17	13.38	14.87	13.75	15.18	15.50
	3H	17.65	18.98	18.03	19.31	19.67	14.98	16.32	15.36	16.64	17.01
	4H	18.18	19.43	18.58	19.78	20.16	15.54	16.79	15.94	17.14	17.52
	6H	18.51	19.67	18.92	20.03	20.42	15.90	17.05	16.31	17.42	17.81
	8H	18.59	19.69	19.02	20.08	20.48	15.98	17.08	16.41	17.47	17.87
	12H	18.62	19.67	19.05	20.05	20.48	16.02	17.07	16.45	17.45	17.88
4H	2H	16.29	17.54	16.69	17.89	18.26	14.06	15.31	14.46	15.66	16.04
	3H	18.07	19.11	18.48	19.51	19.91	15.85	16.88	16.26	17.28	17.69
	4H	18.71	19.64	19.14	20.06	20.50	16.51	17.44	16.94	17.86	18.30
	6H	19.16	19.97	19.61	20.41	20.87	16.97	17.78	17.43	18.22	18.68
	8H	19.27	20.02	19.73	20.47	20.94	17.08	17.84	17.55	18.29	18.75
	12H	19.32	20.00	19.81	20.48	20.95	17.14	17.82	17.63	18.30	18.77
8H	4H	18.81	19.57	19.28	20.01	20.48	16.81	17.57	17.27	18.01	18.48
	6H	19.33	19.95	19.83	20.45	20.92	17.36	17.98	17.86	18.48	18.95
	8H	19.49	20.04	20.00	20.56	21.04	17.53	18.09	18.04	18.60	19.09
	12H	19.59	20.08	20.10	20.57	21.14	17.64	18.13	18.15	18.62	19.19
12H	4H	18.81	19.48	19.29	19.96	20.43	16.83	17.51	17.32	17.99	18.46
	6H	19.32	19.88	19.84	20.39	20.88	17.40	17.96	17.91	18.47	18.96
	8H	19.52	20.01	20.03	20.50	21.07	17.61	18.10	18.12	18.60	19.16