

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: P1217363

Luminaire Tested: S124DRP-H290D950-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217363
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-H290D950-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

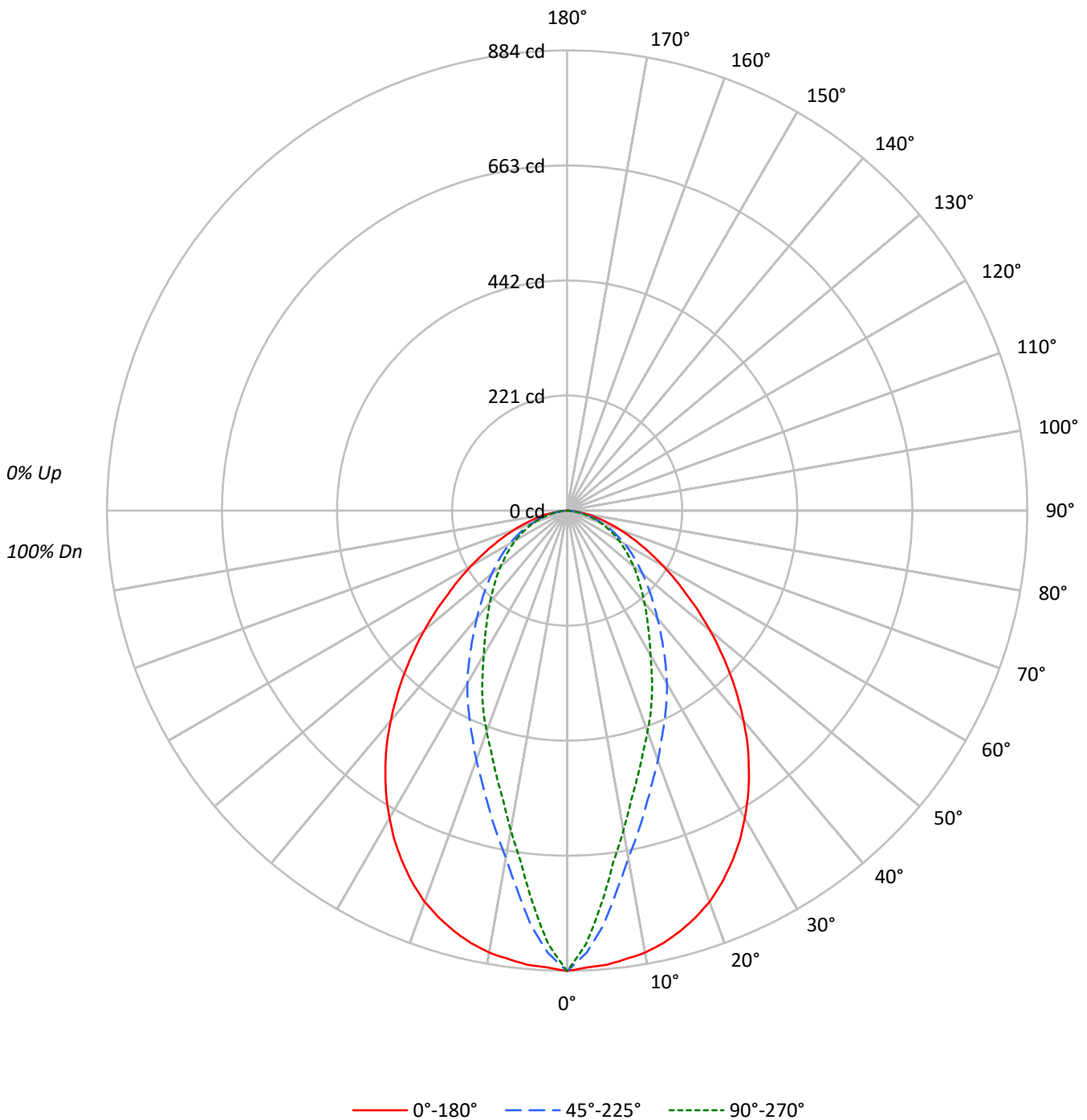
Lumens per Lamp: N/A
Luminaire Lumens: 1240.3 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
Input Voltage (V): 120
Input Current (Ain): 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	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°	7819	7819	7819
5°	7773	7092	6722
10°	7741	6080	5594
15°	7660	5365	4812
20°	7526	4800	4250
25°	7286	4320	3765
30°	6966	3916	3268
35°	6570	3472	2925
40°	6086	3110	2665
45°	5532	2830	2459
50°	4928	2604	2298
55°	4298	2419	2149
60°	3773	2251	2025
65°	3268	2077	1889
70°	2828	1882	1742
75°	2354	1664	1530
80°	1823	1349	1247
85°	1146	913	832

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5532 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.0	6.0
10°-20°	175.9	14.2
20°-30°	224.7	18.1
30°-40°	228.2	18.4
40°-50°	202.3	16.3
50°-60°	159.0	12.8
60°-70°	108.3	8.7
70°-80°	55.6	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°	474.6	38.3
0°-40°	702.9	56.7
0°-60°	1064.2	85.8
0°-90°	1240.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1240.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	884	884	884	884	884	
5°	876	854	799	768	757	83
15°	837	699	586	538	526	236
25°	747	548	443	400	386	343
35°	609	415	322	281	271	380
45°	442	299	226	203	197	341
55°	279	199	157	143	139	252
65°	156	121	99	92	90	156
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°	884.4	884.4	884.4	884.4	884.4
2.5°	878.2	879.3	850.1	839.6	833.4
5°	875.8	853.6	799.1	768.3	757.4
7.5°	868.8	820.5	734.5	692.0	680.7
10°	862.2	782.8	677.2	635.2	623.1
12.5°	851.3	741.1	631.3	583.0	568.6
15°	836.9	698.6	586.1	537.8	525.7
17.5°	819.7	658.1	545.2	498.9	485.6
20°	799.9	620.8	510.2	462.6	451.7
22.5°	775.0	583.8	474.3	431.5	419.4
25°	746.9	547.5	442.8	400.3	385.9
27.5°	716.9	512.5	413.6	366.5	351.3
30°	682.3	479.0	383.6	334.1	320.1
32.5°	647.2	445.9	352.0	305.3	294.0
35°	608.7	414.7	321.7	280.8	271.0
37.5°	569.7	384.8	294.4	258.6	250.0
40°	527.3	355.5	269.5	237.9	230.9
42.5°	484.8	326.3	246.9	219.6	213.0
45°	442.4	298.7	226.3	202.9	196.7
47.5°	399.6	271.4	207.2	186.5	181.5
50°	358.3	245.7	189.3	171.3	167.1
52.5°	318.2	221.6	172.1	156.9	152.3
55°	278.8	199.0	156.9	142.9	139.4
57.5°	245.3	178.0	141.8	129.7	127.0
60°	213.4	157.7	127.3	117.2	114.5
62.5°	183.4	139.0	112.9	104.8	102.8
65°	156.2	120.7	99.3	92.3	90.3
67.5°	131.2	104.0	85.3	80.2	78.7
70°	109.4	87.2	72.8	68.5	67.4
72.5°	87.6	71.3	60.4	57.2	56.1
75°	68.9	56.9	48.7	46.3	44.8
77.5°	51.8	43.2	37.4	35.4	34.3
80°	35.8	30.8	26.5	25.7	24.5
82.5°	22.6	19.5	17.1	16.7	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	16.05	17.54	16.42	17.85	18.17	13.38	14.86	13.74	15.18	15.49
	3H	17.64	18.98	18.02	19.30	19.67	14.97	16.31	15.35	16.64	17.00
	4H	18.17	19.42	18.57	19.77	20.15	15.53	16.78	15.93	17.13	17.51
	6H	18.50	19.66	18.92	20.02	20.42	15.89	17.04	16.30	17.41	17.80
	8H	18.58	19.68	19.01	20.07	20.47	15.97	17.07	16.40	17.46	17.86
	12H	18.61	19.66	19.04	20.04	20.47	16.01	17.06	16.44	17.44	17.87
4H	2H	16.28	17.53	16.68	17.88	18.26	14.05	15.30	14.45	15.65	16.03
	3H	18.06	19.10	18.47	19.50	19.90	15.84	16.88	16.25	17.28	17.68
	4H	18.70	19.63	19.14	20.05	20.49	16.50	17.43	16.93	17.85	18.29
	6H	19.15	19.96	19.61	20.40	20.86	16.96	17.77	17.42	18.21	18.67
	8H	19.26	20.02	19.72	20.46	20.93	17.07	17.83	17.54	18.27	18.74
	12H	19.32	19.99	19.80	20.47	20.94	17.14	17.81	17.62	18.29	18.76
8H	4H	18.81	19.56	19.27	20.01	20.48	16.80	17.56	17.27	18.00	18.47
	6H	19.32	19.95	19.82	20.44	20.92	17.35	17.97	17.85	18.47	18.94
	8H	19.48	20.04	20.00	20.55	21.04	17.52	18.08	18.03	18.59	19.08
	12H	19.58	20.07	20.09	20.57	21.13	17.63	18.12	18.14	18.61	19.18
12H	4H	18.80	19.47	19.28	19.95	20.42	16.83	17.50	17.31	17.98	18.45
	6H	19.32	19.88	19.83	20.39	20.88	17.39	17.95	17.90	18.46	18.95
	8H	19.51	20.00	20.02	20.50	21.06	17.60	18.09	18.11	18.59	19.15