

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: P1217407

Luminaire Tested: S124DRP-S290D940-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217407
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-S290D940-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

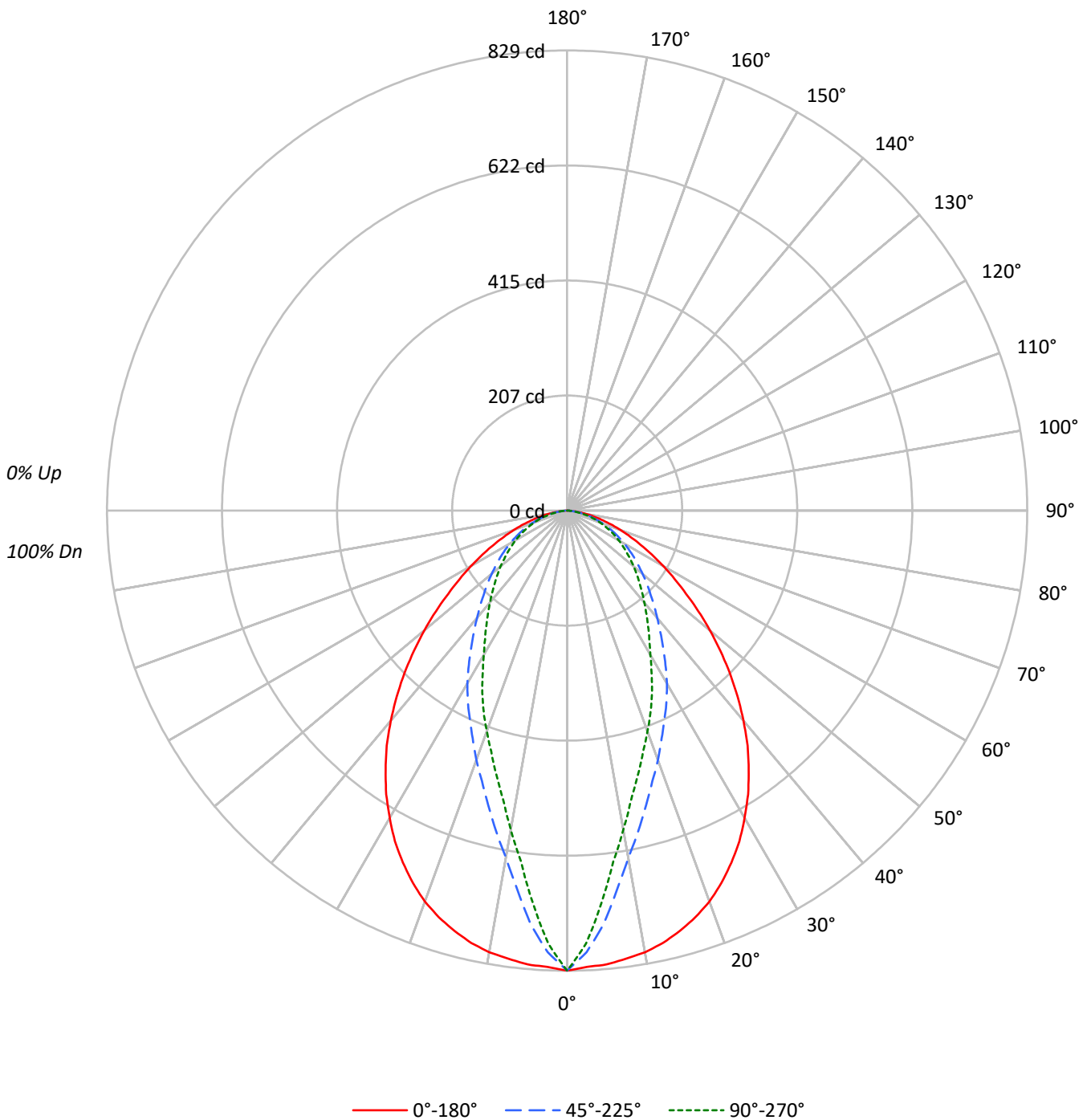
Lumens per Lamp: N/A
Luminaire Lumens: 1162.2 lumens
Efficiency: N/A
Efficacy: 92.2 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1217407

CATALOG NUMBER: S124DRP-S290D940-X4F0-XX-UDD-G-W

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	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°	7327	7327	7327
5°	7284	6646	6299
10°	7253	5697	5241
15°	7178	5027	4509
20°	7052	4497	3983
25°	6828	4048	3528
30°	6527	3669	3062
35°	6155	3253	2742
40°	5703	2914	2498
45°	5183	2651	2304
50°	4617	2439	2153
55°	4028	2267	2013
60°	3537	2110	1897
65°	3061	1946	1772
70°	2650	1763	1631
75°	2207	1558	1435
80°	1711	1263	1171
85°	1075	852	781

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5183 cd/sqm



TEST NUMBER: P1217407

CATALOG NUMBER: S124DRP-S290D940-X4F0-XX-UDD-G-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.4	6.0
10°-20°	164.8	14.2
20°-30°	210.6	18.1
30°-40°	213.9	18.4
40°-50°	189.6	16.3
50°-60°	149.0	12.8
60°-70°	101.4	8.7
70°-80°	52.1	4.5
80°-90°	11.5	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°	444.7	38.3
0°-40°	658.6	56.7
0°-60°	997.1	85.8
0°-90°	1162.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1162.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	829	829	829	829	829	
5°	821	800	749	720	710	78
15°	784	655	549	504	493	221
25°	700	513	415	375	362	322
35°	570	389	301	263	254	356
45°	414	280	212	190	184	319
55°	261	186	147	134	131	236
65°	146	113	93	86	85	146
75°	65	53	46	43	42	69
85°	11	10	8	8	8	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	828.7	828.7	828.7	828.7	828.7
2.5°	822.8	823.9	796.6	786.7	780.9
5°	820.7	799.9	748.8	719.9	709.7
7.5°	814.1	768.8	688.2	648.4	637.8
10°	807.9	733.4	634.6	595.1	583.8
12.5°	797.7	694.4	591.5	546.3	532.7
15°	784.2	654.6	549.2	503.9	492.6
17.5°	768.1	616.7	510.9	467.4	455.0
20°	749.5	581.6	478.0	433.5	423.3
22.5°	726.1	547.0	444.4	404.3	393.0
25°	699.9	513.0	414.9	375.1	361.6
27.5°	671.8	480.2	387.5	343.4	329.1
30°	639.3	448.8	359.4	313.1	299.9
32.5°	606.5	417.8	329.9	286.1	275.5
35°	570.3	388.6	301.4	263.1	254.0
37.5°	533.8	360.5	275.9	242.3	234.3
40°	494.1	333.2	252.5	223.0	216.4
42.5°	454.3	305.8	231.3	205.8	199.6
45°	414.5	279.9	212.0	190.1	184.3
47.5°	374.4	254.3	194.1	174.8	170.0
50°	335.7	230.2	177.3	160.6	156.5
52.5°	298.1	207.6	161.3	147.1	142.7
55°	261.3	186.5	147.1	133.9	130.6
57.5°	229.9	166.8	132.8	121.5	119.0
60°	200.0	147.8	119.3	109.8	107.3
62.5°	171.9	130.3	105.8	98.2	96.3
65°	146.3	113.1	93.0	86.5	84.7
67.5°	123.0	97.4	79.9	75.2	73.7
70°	102.5	81.7	68.2	64.2	63.1
72.5°	82.1	66.8	56.6	53.6	52.5
75°	64.6	53.3	45.6	43.4	42.0
77.5°	48.5	40.5	35.0	33.2	32.1
80°	33.6	28.8	24.8	24.1	23.0
82.5°	21.2	18.2	16.1	15.7	14.6
85°	10.6	9.9	8.4	8.4	7.7
87.5°	3.6	3.3	3.3	3.3	2.9
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	15.83	17.31	16.19	17.63	17.94	13.15	14.64	13.51	14.95	15.26
	3H	17.42	18.75	17.79	19.08	19.44	14.75	16.08	15.13	16.41	16.77
	4H	17.95	19.20	18.35	19.55	19.92	15.31	16.55	15.71	16.90	17.28
	6H	18.28	19.43	18.69	19.80	20.19	15.66	16.81	16.07	17.18	17.57
	8H	18.36	19.45	18.78	19.84	20.25	15.75	16.85	16.17	17.24	17.64
	12H	18.39	19.44	18.82	19.82	20.25	15.78	16.83	16.21	17.22	17.65
4H	2H	16.05	17.30	16.45	17.65	18.03	13.82	15.07	14.22	15.42	15.80
	3H	17.84	18.87	18.25	19.27	19.67	15.61	16.65	16.02	17.05	17.45
	4H	18.48	19.41	18.91	19.83	20.26	16.27	17.21	16.71	17.62	18.06
	6H	18.92	19.73	19.38	20.18	20.64	16.73	17.54	17.19	17.98	18.45
	8H	19.03	19.79	19.50	20.24	20.70	16.85	17.60	17.31	18.05	18.52
	12H	19.09	19.77	19.58	20.25	20.72	16.91	17.58	17.39	18.06	18.53
8H	4H	18.58	19.34	19.04	19.78	20.25	16.57	17.33	17.04	17.78	18.24
	6H	19.10	19.72	19.60	20.21	20.69	17.12	17.75	17.62	18.24	18.72
	8H	19.25	19.81	19.77	20.32	20.81	17.29	17.85	17.81	18.36	18.85
	12H	19.35	19.85	19.87	20.34	20.91	17.40	17.89	17.91	18.38	18.95
12H	4H	18.57	19.25	19.05	19.72	20.20	16.60	17.27	17.08	17.75	18.22
	6H	19.09	19.65	19.61	20.16	20.65	17.16	17.72	17.68	18.23	18.72
	8H	19.28	19.78	19.80	20.27	20.84	17.38	17.87	17.89	18.36	18.93