

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: P1217405

Luminaire Tested: S124DRP-S290D930-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

Test Information

Test Method: LM-79-2024
Report Number: P1217405
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-S290D930-X4F0-XX-UDD-G-W
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

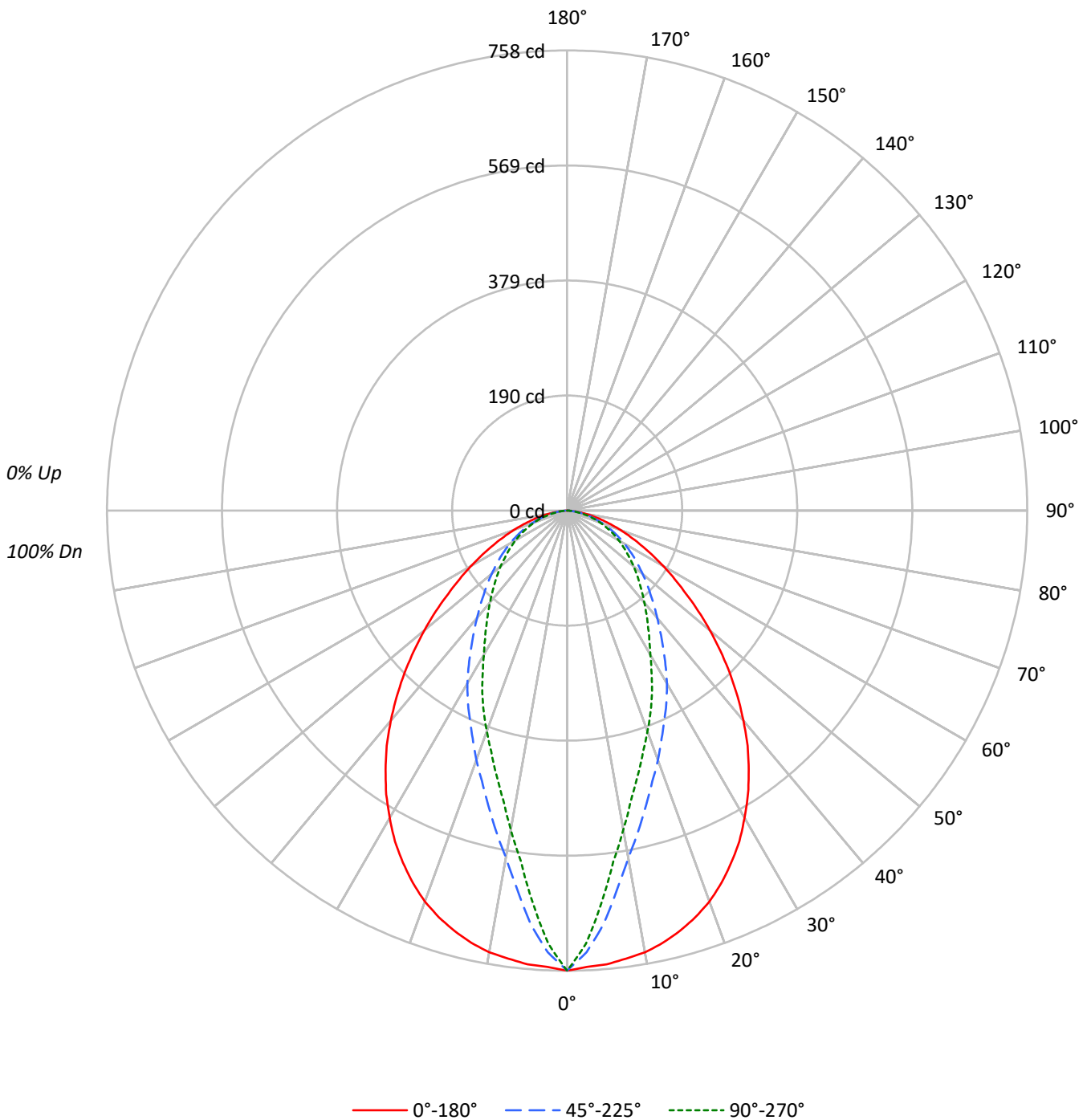
Lumens per Lamp: N/A
Luminaire Lumens: 1062.6 lumens
Efficiency: N/A
Efficacy: 84.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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: P1217405

CATALOG NUMBER: S124DRP-S290D930-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												100																
1	110	106	102	99	108	104	100	97	100	97	94	96	94	92	92	90	89	87												87																
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75												75																
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65												65																
4	87	76	68	62	84	75	67	62	72	66	61	70	64	60	68	63	59	57												57																
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51												51																
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45												45																
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41												41																
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37												37																
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36	34												34																
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33	31												31																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6699	6699	6699
5°	6659	6076	5759
10°	6632	5209	4792
15°	6563	4596	4123
20°	6448	4113	3641
25°	6242	3700	3225
30°	5967	3355	2799
35°	5629	2975	2506
40°	5213	2665	2283
45°	4739	2423	2107
50°	4221	2230	1968
55°	3683	2073	1840
60°	3232	1929	1735
65°	2799	1780	1619
70°	2422	1613	1492
75°	2019	1424	1312
80°	1563	1156	1069
85°	984	781	710

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4739 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.4	6.0
10°-20°	150.7	14.2
20°-30°	192.5	18.1
30°-40°	195.5	18.4
40°-50°	173.3	16.3
50°-60°	136.2	12.8
60°-70°	92.7	8.7
70°-80°	47.6	4.5
80°-90°	10.6	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°	406.6	38.3
0°-40°	602.1	56.7
0°-60°	911.7	85.8
0°-90°	1062.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1062.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	758	758	758	758	758	
5°	750	731	685	658	649	71
15°	717	598	502	461	450	202
25°	640	469	379	343	331	294
35°	522	355	276	240	232	325
45°	379	256	194	174	168	292
55°	239	170	134	122	119	216
65°	134	103	85	79	77	134
75°	59	49	42	40	38	63
85°	10	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°	757.7	757.7	757.7	757.7	757.7
2.5°	752.3	753.3	728.3	719.3	714.0
5°	750.3	731.3	684.6	658.2	648.9
7.5°	744.3	703.0	629.2	592.9	583.2
10°	738.7	670.6	580.2	544.1	533.8
12.5°	729.3	634.9	540.8	499.4	487.1
15°	717.0	598.5	502.1	460.7	450.4
17.5°	702.3	563.8	467.1	427.4	416.0
20°	685.3	531.8	437.1	396.4	387.0
22.5°	663.9	500.1	406.4	369.7	359.3
25°	639.9	469.1	379.3	343.0	330.6
27.5°	614.2	439.1	354.3	313.9	300.9
30°	584.5	410.4	328.6	286.3	274.2
32.5°	554.5	382.0	301.6	261.6	251.9
35°	521.5	355.3	275.6	240.5	232.2
37.5°	488.1	329.6	252.2	221.5	214.2
40°	451.7	304.6	230.9	203.8	197.8
42.5°	415.4	279.6	211.5	188.2	182.5
45°	379.0	255.9	193.8	173.8	168.5
47.5°	342.3	232.5	177.5	159.8	155.5
50°	306.9	210.5	162.1	146.8	143.1
52.5°	272.6	189.8	147.5	134.5	130.4
55°	238.9	170.5	134.5	122.4	119.4
57.5°	210.2	152.5	121.4	111.1	108.8
60°	182.8	135.1	109.1	100.4	98.1
62.5°	157.1	119.1	96.8	89.7	88.1
65°	133.8	103.4	85.1	79.1	77.4
67.5°	112.4	89.1	73.1	68.7	67.4
70°	93.7	74.7	62.4	58.7	57.7
72.5°	75.1	61.1	51.7	49.0	48.0
75°	59.1	48.7	41.7	39.7	38.4
77.5°	44.4	37.0	32.0	30.4	29.4
80°	30.7	26.4	22.7	22.0	21.0
82.5°	19.4	16.7	14.7	14.3	13.3
85°	9.7	9.0	7.7	7.7	7.0
87.5°	3.3	3.0	3.0	3.0	2.7
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	15.51	17.00	15.88	17.31	17.63	12.84	14.33	13.20	14.64	14.95
	3H	17.11	18.44	17.48	18.77	19.13	14.44	15.77	14.81	16.10	16.46
	4H	17.64	18.89	18.04	19.23	19.61	14.99	16.24	15.39	16.59	16.97
	6H	17.97	19.12	18.38	19.49	19.88	15.35	16.50	15.76	16.87	17.26
	8H	18.05	19.14	18.47	19.53	19.93	15.44	16.53	15.86	16.92	17.33
	12H	18.07	19.13	18.51	19.51	19.94	15.47	16.52	15.90	16.91	17.33
4H	2H	15.74	16.99	16.14	17.34	17.72	13.51	14.76	13.91	15.11	15.49
	3H	17.52	18.56	17.94	18.96	19.36	15.30	16.34	15.71	16.74	17.14
	4H	18.17	19.10	18.60	19.51	19.95	15.96	16.90	16.40	17.31	17.75
	6H	18.61	19.42	19.07	19.86	20.33	16.42	17.23	16.88	17.67	18.14
	8H	18.72	19.48	19.19	19.93	20.39	16.54	17.29	17.00	17.74	18.21
	12H	18.78	19.46	19.26	19.94	20.41	16.60	17.27	17.08	17.75	18.22
8H	4H	18.27	19.03	18.73	19.47	19.94	16.26	17.02	16.73	17.46	17.93
	6H	18.79	19.41	19.29	19.90	20.38	16.81	17.44	17.31	17.93	18.41
	8H	18.94	19.50	19.46	20.01	20.50	16.98	17.54	17.50	18.05	18.54
	12H	19.04	19.54	19.56	20.03	20.60	17.09	17.58	17.60	18.07	18.64
12H	4H	18.26	18.93	18.74	19.41	19.89	16.29	16.96	16.77	17.44	17.91
	6H	18.78	19.34	19.30	19.85	20.34	16.85	17.41	17.37	17.92	18.41
	8H	18.97	19.47	19.49	19.96	20.53	17.06	17.56	17.57	18.05	18.61