

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: P1056077

Luminaire Tested: S124R3DR-S795D930-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056077
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-9)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124R3DR-S795D930-X4F0-XX-UDD-F-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

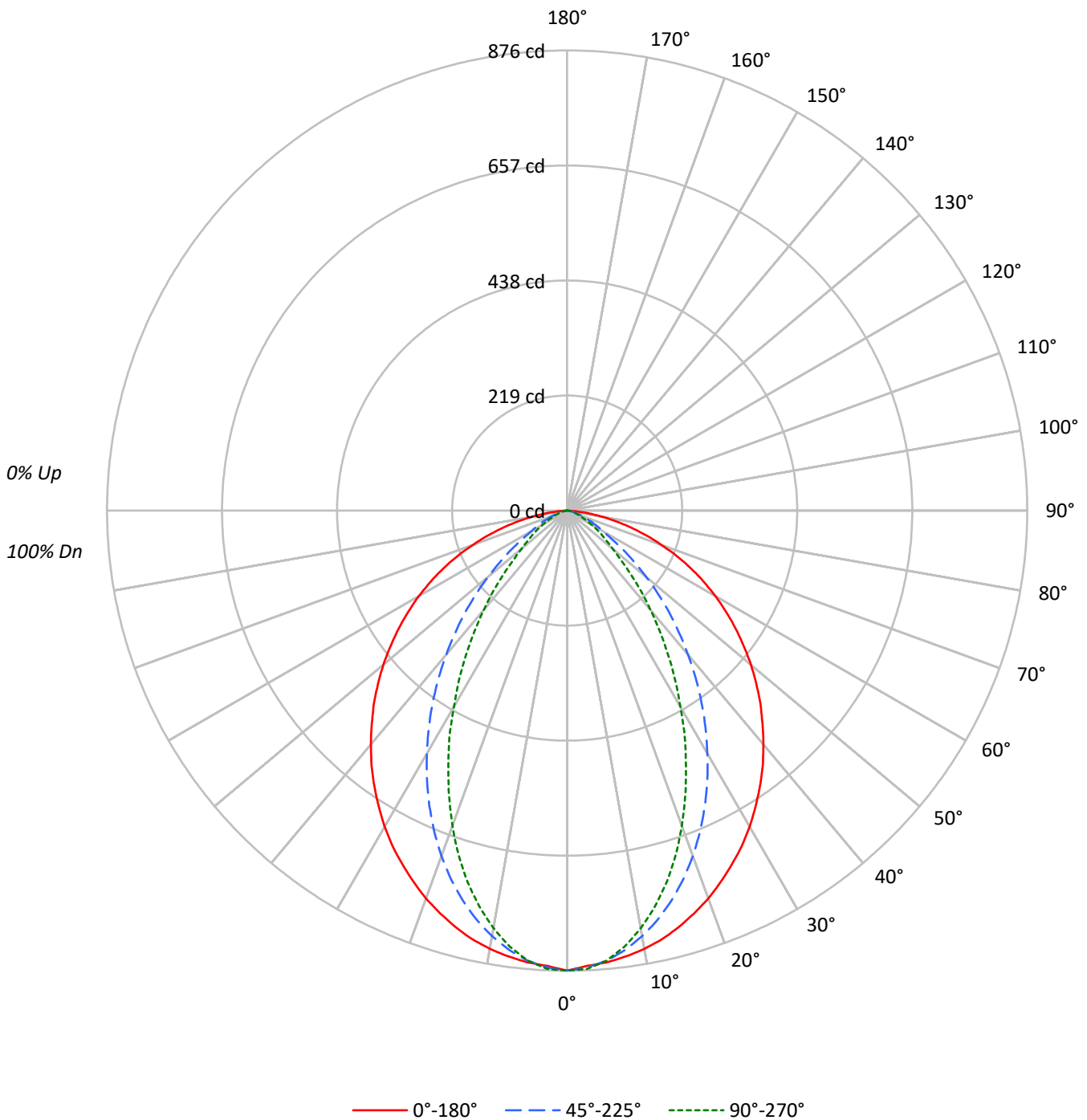
Lumens per Lamp: N/A
Luminaire Lumens: 1415.9 lumens
Efficiency: N/A
Efficacy: 53.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	89																												
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79	78																												
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68																												
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62	60																												
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56	54																												
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	48																												
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46	44																												
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40																												
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38	37																												
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35	34																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7742	7742	7742
5°	7663	7634	7634
10°	7605	7385	7246
15°	7515	7030	6701
20°	7394	6581	6007
25°	7245	6052	5217
30°	7091	5452	4395
35°	6908	4814	3617
40°	6709	4131	2851
45°	6504	3436	2131
50°	6280	2703	1558
55°	6032	1998	1244
60°	5766	1385	951
65°	5425	1075	699
70°	4912	760	548
75°	4291	529	417
80°	3447	418	372
85°	1907	335	335

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6504 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.2	5.7
10°-20°	217.0	15.3
20°-30°	289.4	20.4
30°-40°	291.4	20.6
40°-50°	239.0	16.9
50°-60°	163.4	11.5
60°-70°	91.3	6.4
70°-80°	36.2	2.6
80°-90°	6.9	0.5
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°	587.7	41.5
0°-40°	879.1	62.1
0°-60°	1281.5	90.5
0°-90°	1415.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1415.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	876	876	876	876	876	
5°	863	873	860	856	860	82
15°	821	812	768	741	732	231
25°	743	706	620	558	535	342
35°	640	572	446	361	335	400
45°	520	425	275	193	170	401
55°	391	275	130	86	81	350
65°	259	130	51	37	33	256
75°	126	34	16	13	12	135
85°	19	3	3	3	3	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	875.6	875.6	875.6	875.6	875.6
2.5°	867.5	878.1	870.7	871.6	873.2
5°	863.4	873.2	860.1	856.1	860.1
7.5°	856.1	863.4	843.8	835.7	837.3
10°	847.1	849.5	822.6	808.8	807.1
12.5°	835.7	832.4	797.4	777.0	772.1
15°	821.0	812.0	768.0	741.1	732.1
17.5°	803.9	788.4	735.4	700.3	687.3
20°	785.9	763.1	699.5	654.7	638.4
22.5°	764.7	736.2	661.2	606.6	587.8
25°	742.7	706.0	620.4	557.7	534.8
27.5°	719.9	675.1	578.0	507.9	485.1
30°	694.6	641.6	534.0	458.2	430.5
32.5°	667.7	607.4	490.0	409.3	383.2
35°	640.0	572.3	446.0	361.2	335.1
37.5°	611.5	536.5	401.9	315.5	289.4
40°	581.3	499.8	357.9	272.3	247.0
42.5°	550.3	462.3	315.5	231.5	207.9
45°	520.2	424.8	274.8	193.2	170.4
47.5°	488.4	387.3	234.8	157.4	137.8
50°	456.6	349.8	196.5	126.4	113.3
52.5°	424.0	312.3	161.4	103.5	94.6
55°	391.3	274.8	129.6	86.4	80.7
57.5°	358.7	237.3	100.3	73.4	66.9
60°	326.1	200.6	78.3	59.5	53.8
62.5°	292.7	163.9	64.4	47.3	42.4
65°	259.3	130.4	51.4	36.7	33.4
67.5°	225.8	99.5	39.1	28.5	26.1
70°	190.0	70.9	29.4	22.0	21.2
72.5°	159.0	48.1	21.2	17.1	16.3
75°	125.6	34.2	15.5	13.0	12.2
77.5°	97.0	22.0	11.4	10.6	9.8
80°	67.7	12.2	8.2	7.3	7.3
82.5°	41.6	6.5	5.7	4.9	4.9
85°	18.8	3.3	3.3	3.3	3.3
87.5°	3.3	1.6	1.6	1.6	1.6
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	17.84	19.24	18.20	19.56	19.87	8.93	10.33	9.29	10.65	10.96
	3H	19.42	20.67	19.80	21.00	21.37	9.52	10.77	9.90	11.10	11.46
	4H	20.02	21.18	20.42	21.53	21.92	9.67	10.84	10.08	11.19	11.57
	6H	20.45	21.52	20.86	21.89	22.29	9.78	10.86	10.19	11.22	11.62
	8H	20.56	21.58	20.99	21.97	22.38	9.80	10.82	10.23	11.21	11.62
	12H	20.60	21.58	21.04	21.96	22.39	9.81	10.78	10.24	11.17	11.60
4H	2H	17.69	18.86	18.09	19.21	19.59	9.51	10.68	9.91	11.03	11.41
	3H	19.34	20.30	19.75	20.70	21.10	10.22	11.18	10.63	11.58	11.99
	4H	19.94	20.80	20.38	21.22	21.66	10.42	11.28	10.86	11.70	12.14
	6H	20.44	21.18	20.90	21.62	22.09	10.59	11.33	11.05	11.78	12.24
	8H	20.58	21.27	21.04	21.72	22.18	10.62	11.31	11.09	11.76	12.23
	12H	20.65	21.26	21.14	21.75	22.22	10.65	11.26	11.13	11.74	12.22
8H	4H	19.84	20.53	20.30	20.97	21.44	10.70	11.39	11.16	11.83	12.30
	6H	20.32	20.88	20.82	21.38	21.86	10.90	11.47	11.40	11.96	12.44
	8H	20.46	20.97	20.98	21.48	21.97	10.96	11.46	11.48	11.98	12.47
	12H	20.55	21.00	21.07	21.49	22.06	11.02	11.47	11.53	11.96	12.53
12H	4H	19.80	20.41	20.28	20.89	21.36	10.72	11.34	11.21	11.82	12.29
	6H	20.26	20.77	20.78	21.28	21.77	10.93	11.44	11.45	11.95	12.44
	8H	20.43	20.87	20.94	21.37	21.94	11.02	11.47	11.53	11.96	12.53