

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: P1056086

Luminaire Tested: S124R3DR-S795D950-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056086
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-S795D950-X4F0-XX-UDD-F-S
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

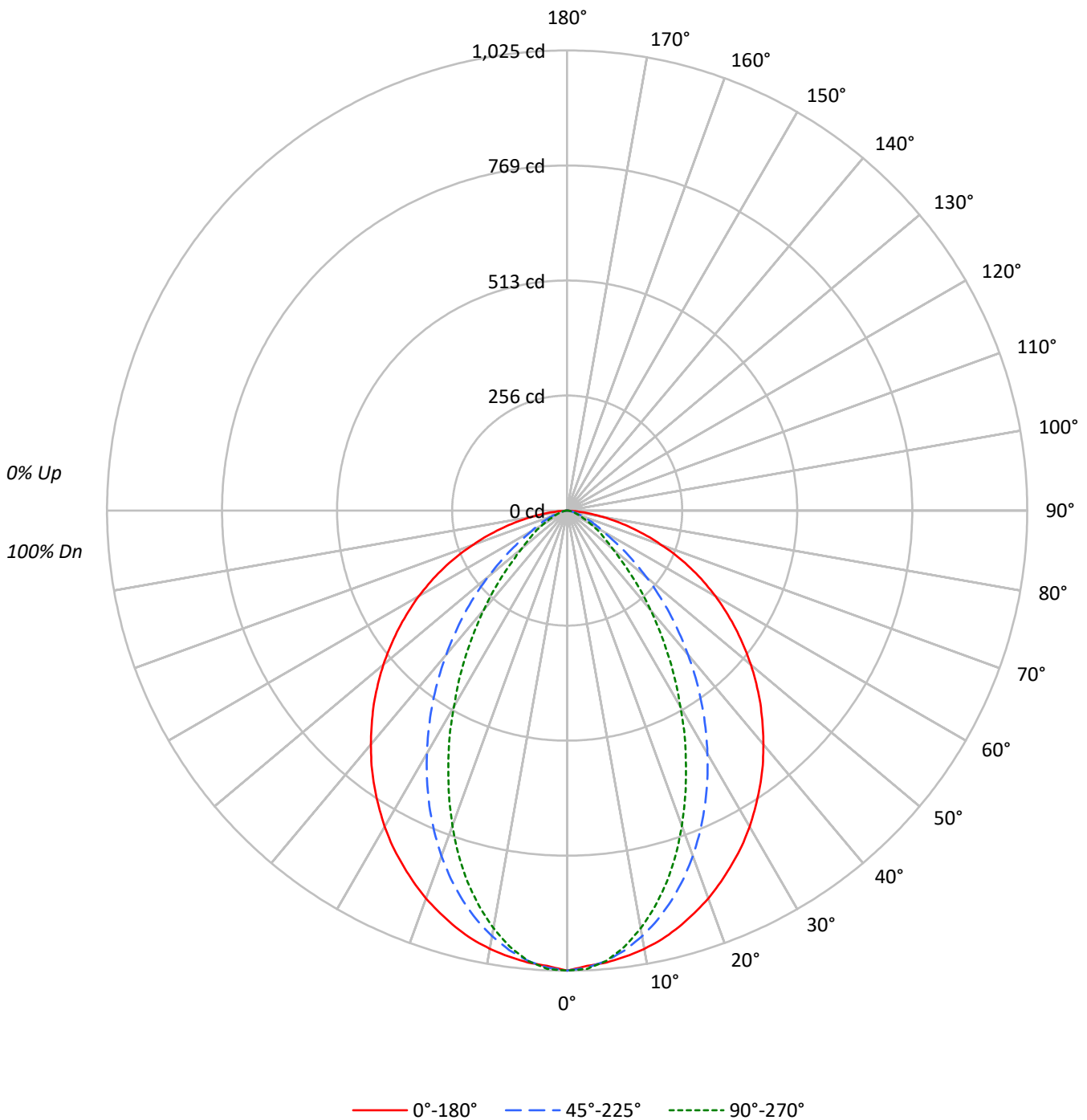
Lumens per Lamp: N/A
Luminaire Lumens: 1656.7 lumens
Efficiency: N/A
Efficacy: 62.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (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	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°	9059	9059	9059
5°	8967	8933	8933
10°	8899	8642	8480
15°	8794	8226	7842
20°	8653	7701	7028
25°	8478	7082	6105
30°	8298	6380	5142
35°	8083	5632	4232
40°	7851	4834	3337
45°	7611	4020	2493
50°	7348	3162	1824
55°	7058	2338	1455
60°	6748	1620	1114
65°	6347	1257	818
70°	5747	887	641
75°	5018	618	488
80°	4033	484	438
85°	2222	385	385

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7611 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.0	5.7
10°-20°	253.9	15.3
20°-30°	338.7	20.4
30°-40°	341.0	20.6
40°-50°	279.7	16.9
50°-60°	191.2	11.5
60°-70°	106.8	6.4
70°-80°	42.4	2.6
80°-90°	8.0	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°	687.7	41.5
0°-40°	1028.7	62.1
0°-60°	1499.5	90.5
0°-90°	1656.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1656.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1025	1025	1025	1025	1025	
5°	1010	1022	1006	1002	1006	96
15°	961	950	899	867	857	271
25°	869	826	726	652	626	400
35°	749	670	522	423	392	468
45°	609	497	322	226	199	469
55°	458	322	152	101	94	410
65°	303	153	60	43	39	300
75°	147	40	18	15	14	157
85°	22	4	4	4	4	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1024.6	1024.6	1024.6	1024.6	1024.6
2.5°	1015.1	1027.5	1018.9	1019.8	1021.7
5°	1010.3	1021.7	1006.5	1001.7	1006.5
7.5°	1001.7	1010.3	987.4	977.9	979.8
10°	991.2	994.1	962.6	946.4	944.5
12.5°	977.9	974.0	933.0	909.2	903.4
15°	960.7	950.2	898.7	867.2	856.7
17.5°	940.6	922.5	860.5	819.5	804.2
20°	919.7	892.9	818.5	766.1	747.0
22.5°	894.9	861.5	773.7	709.8	687.8
25°	869.1	826.2	726.0	652.5	625.8
27.5°	842.4	789.9	676.4	594.3	567.6
30°	812.8	750.8	624.9	536.1	503.7
32.5°	781.3	710.7	573.4	478.9	448.4
35°	748.9	669.7	521.8	422.6	392.1
37.5°	715.5	627.7	470.3	369.2	338.7
40°	680.2	584.8	418.8	318.6	289.1
42.5°	644.0	540.9	369.2	270.9	243.3
45°	608.7	497.0	321.5	226.1	199.4
47.5°	571.4	453.2	274.8	184.1	161.2
50°	534.2	409.3	229.9	147.9	132.6
52.5°	496.1	365.4	188.9	121.2	110.7
55°	457.9	321.5	151.7	101.1	94.4
57.5°	419.8	277.6	117.3	85.9	78.2
60°	381.6	234.7	91.6	69.6	63.0
62.5°	342.5	191.8	75.4	55.3	49.6
65°	303.4	152.6	60.1	42.9	39.1
67.5°	264.3	116.4	45.8	33.4	30.5
70°	222.3	83.0	34.3	25.8	24.8
72.5°	186.0	56.3	24.8	20.0	19.1
75°	146.9	40.1	18.1	15.3	14.3
77.5°	113.5	25.8	13.4	12.4	11.4
80°	79.2	14.3	9.5	8.6	8.6
82.5°	48.7	7.6	6.7	5.7	5.7
85°	21.9	3.8	3.8	3.8	3.8
87.5°	3.8	1.9	1.9	1.9	1.9
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	18.38	19.79	18.75	20.10	20.42	9.47	10.88	9.84	11.19	11.51
	3H	19.97	21.22	20.35	21.55	21.91	10.06	11.32	10.44	11.64	12.01
	4H	20.56	21.73	20.96	22.08	22.46	10.22	11.39	10.62	11.74	12.12
	6H	20.99	22.07	21.41	22.44	22.83	10.33	11.40	10.74	11.77	12.16
	8H	21.11	22.13	21.54	22.52	22.92	10.35	11.37	10.78	11.76	12.16
	12H	21.15	22.12	21.58	22.51	22.94	10.36	11.33	10.79	11.71	12.14
4H	2H	18.23	19.40	18.64	19.75	20.13	10.06	11.22	10.46	11.57	11.96
	3H	19.88	20.84	20.29	21.24	21.65	10.77	11.73	11.18	12.13	12.53
	4H	20.49	21.35	20.92	21.76	22.21	10.97	11.83	11.41	12.25	12.69
	6H	20.98	21.72	21.44	22.17	22.63	11.14	11.88	11.60	12.32	12.79
	8H	21.12	21.82	21.59	22.26	22.73	11.17	11.86	11.64	12.31	12.78
	12H	21.20	21.81	21.68	22.29	22.76	11.20	11.81	11.68	12.29	12.76
8H	4H	20.38	21.07	20.85	21.52	21.99	11.24	11.93	11.71	12.38	12.85
	6H	20.86	21.43	21.36	21.92	22.40	11.45	12.01	11.95	12.51	12.99
	8H	21.01	21.52	21.53	22.03	22.52	11.50	12.01	12.02	12.52	13.02
	12H	21.10	21.55	21.61	22.04	22.61	11.56	12.01	12.07	12.50	13.07
12H	4H	20.34	20.96	20.83	21.44	21.91	11.27	11.88	11.76	12.37	12.84
	6H	20.81	21.32	21.33	21.83	22.32	11.48	11.98	11.99	12.50	12.99
	8H	20.97	21.42	21.49	21.91	22.48	11.57	12.02	12.08	12.51	13.08