

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: P1056085

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

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056085
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-8)
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-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

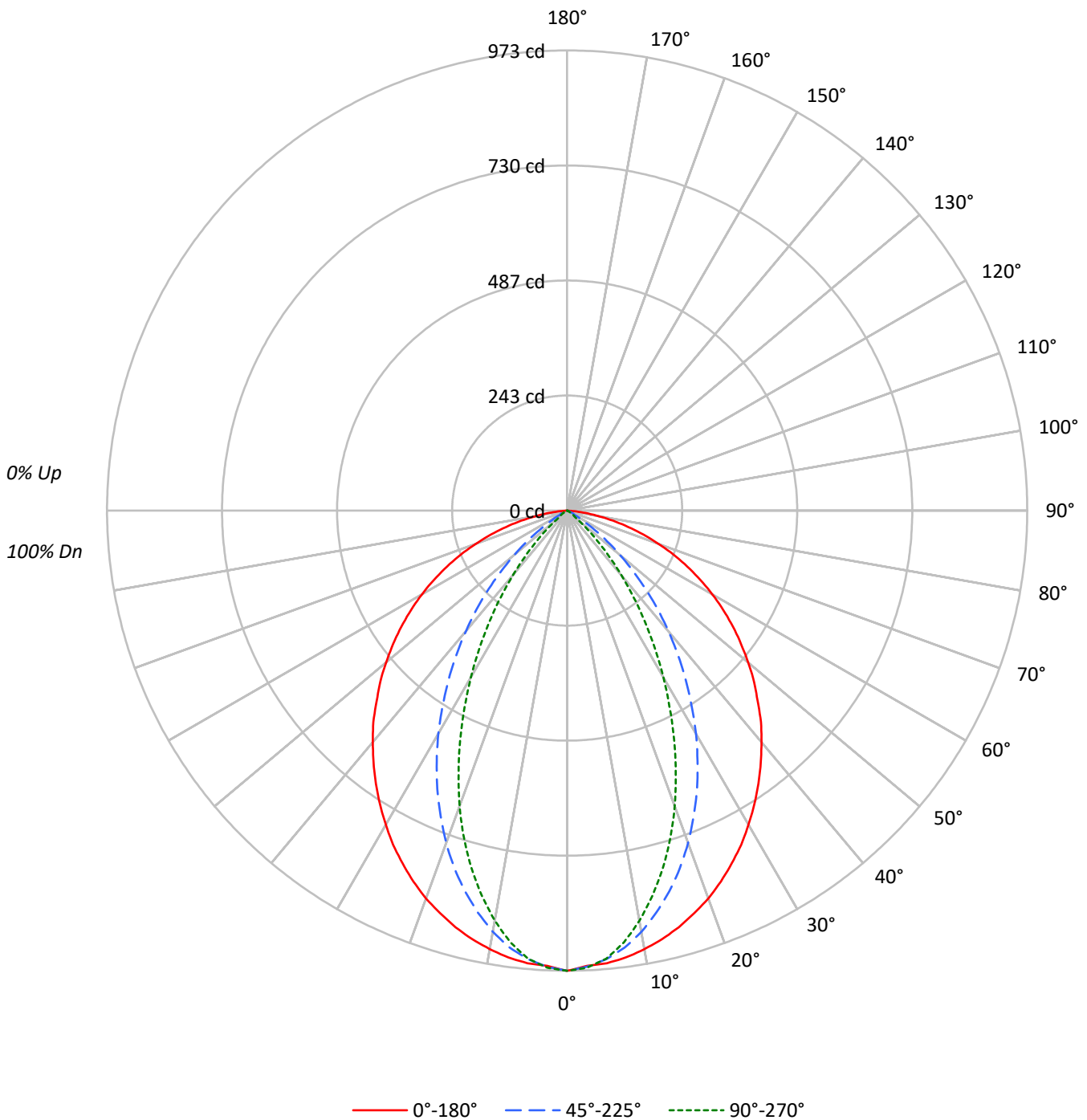
Lumens per Lamp: N/A
Luminaire Lumens: 1360.1 lumens
Efficiency: N/A
Efficacy: 51.5 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64
5	84	74	66	61	83	73	66	61	71	65	60	69	64	60	67	63	59	57
6	79	68	60	55	77	67	60	55	65	59	54	64	58	54	62	57	54	52
7	74	63	55	50	73	62	55	50	60	54	50	59	53	49	58	53	49	47
8	70	58	51	46	68	57	50	46	56	50	45	55	49	45	54	49	45	43
9	66	54	47	42	64	53	47	42	52	46	42	51	46	42	50	45	41	40
10	62	50	43	39	61	50	43	39	49	43	39	48	42	39	47	42	38	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8604	8604	8604
5°	8526	8450	8441
10°	8453	8119	7905
15°	8348	7632	7161
20°	8213	7037	6256
25°	8032	6338	5221
30°	7830	5561	4149
35°	7609	4716	3089
40°	7377	3842	2059
45°	7121	2935	1133
50°	6876	2008	315
55°	6602	1088	207
60°	6276	338	118
65°	5868	220	61
70°	5302	98	26
75°	4564	34	0
80°	3447	0	0
85°	1451	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7121 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.8	6.6
10°-20°	235.7	17.3
20°-30°	304.5	22.4
30°-40°	291.1	21.4
40°-50°	217.7	16.0
50°-60°	129.5	9.5
60°-70°	65.8	4.8
70°-80°	22.9	1.7
80°-90°	3.1	0.2
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°	630.0	46.3
0°-40°	921.0	67.7
0°-60°	1268.3	93.3
0°-90°	1360.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1360.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	973	973	973	973	973	
5°	961	968	952	947	951	91
15°	912	893	834	795	782	257
25°	823	766	650	564	535	379
35°	705	608	437	325	286	441
45°	570	437	235	125	91	440
55°	428	266	71	16	13	382
65°	280	108	10	4	3	277
75°	134	14	1	1	0	142
85°	14	0	0	0	0	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	973.1	973.1	973.1	973.1	973.1
2.5°	963.5	975.0	965.4	966.4	967.4
5°	960.7	968.3	952.1	947.3	951.1
7.5°	953.0	955.9	932.1	919.7	920.6
10°	941.6	938.7	904.4	883.4	880.5
12.5°	928.2	918.7	871.0	840.5	833.8
15°	912.0	892.9	833.8	794.7	782.3
17.5°	892.9	865.3	792.8	741.3	726.0
20°	872.9	834.7	747.9	684.0	664.9
22.5°	849.1	800.4	699.3	623.9	600.1
25°	823.3	766.1	649.7	563.8	535.2
27.5°	796.6	728.9	597.2	502.8	469.4
30°	767.0	689.7	544.7	440.7	406.4
32.5°	736.5	649.7	490.4	383.5	345.3
35°	705.0	607.7	436.9	325.3	286.2
37.5°	672.6	565.7	385.4	270.0	229.9
40°	639.2	522.8	332.9	217.5	178.4
42.5°	606.7	479.9	283.3	167.9	131.7
45°	569.5	436.9	234.7	125.0	90.6
47.5°	536.1	395.0	187.9	84.9	53.4
50°	499.9	350.1	146.0	49.6	22.9
52.5°	463.6	308.1	106.8	21.9	17.2
55°	428.3	266.2	70.6	16.2	13.4
57.5°	391.1	224.2	38.2	12.4	9.5
60°	354.9	183.2	19.1	9.5	6.7
62.5°	317.7	144.1	15.3	5.7	3.8
65°	280.5	107.8	10.5	3.8	2.9
67.5°	243.3	73.5	6.7	1.9	1.0
70°	205.1	44.8	3.8	1.0	1.0
72.5°	168.9	22.9	1.9	1.0	1.0
75°	133.6	14.3	1.0	1.0	0.0
77.5°	99.2	7.6	1.0	1.0	0.0
80°	67.7	2.9	0.0	0.0	0.0
82.5°	39.1	1.0	0.0	0.0	0.0
85°	14.3	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	17.93	19.26	18.30	19.57	19.89	0.00	0.00	0.00	0.00	0.00
	3H	19.48	20.65	19.85	20.98	21.35	0.00	0.00	0.00	0.00	0.00
	4H	20.07	21.16	20.47	21.52	21.90	0.00	0.00	0.00	0.00	0.00
	6H	20.49	21.49	20.90	21.86	22.26	0.00	0.00	0.00	0.00	0.00
	8H	20.58	21.54	21.01	21.93	22.33	0.00	0.00	0.00	0.00	0.00
	12H	20.60	21.51	21.04	21.90	22.33	0.00	0.00	0.00	0.00	0.00
4H	2H	17.71	18.81	18.11	19.16	19.54	0.00	0.00	0.00	0.00	0.00
	3H	19.27	20.17	19.69	20.57	20.97	0.00	0.00	0.00	0.00	0.00
	4H	19.86	20.65	20.29	21.07	21.52	0.00	0.00	0.00	0.00	0.00
	6H	20.32	21.00	20.78	21.45	21.92	0.00	0.00	0.00	0.00	0.00
	8H	20.44	21.08	20.91	21.53	22.00	0.00	0.00	0.00	0.00	0.00
	12H	20.48	21.04	20.96	21.53	22.00	0.00	0.00	0.00	0.00	0.00
8H	4H	19.72	20.36	20.19	20.81	21.28	0.00	0.00	0.00	0.32	0.79
	6H	20.16	20.68	20.66	21.18	21.66	0.00	0.00	0.00	0.16	0.64
	8H	20.28	20.75	20.80	21.26	21.75	0.00	0.00	0.00	0.06	0.56
	12H	20.33	20.74	20.84	21.24	21.81	0.00	0.00	0.00	0.00	0.52
12H	4H	19.68	20.24	20.16	20.72	21.20	0.00	0.21	0.13	0.69	1.17
	6H	20.10	20.57	20.62	21.08	21.58	0.00	0.00	0.06	0.52	1.01
	8H	20.23	20.65	20.75	21.14	21.71	0.00	0.00	0.01	0.40	0.97