

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: P1056082

Luminaire Tested: S124R3DR-S795D940-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056082
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-S795D940-X4F0-XX-UDD-F-B
Description: DEFINE 4, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

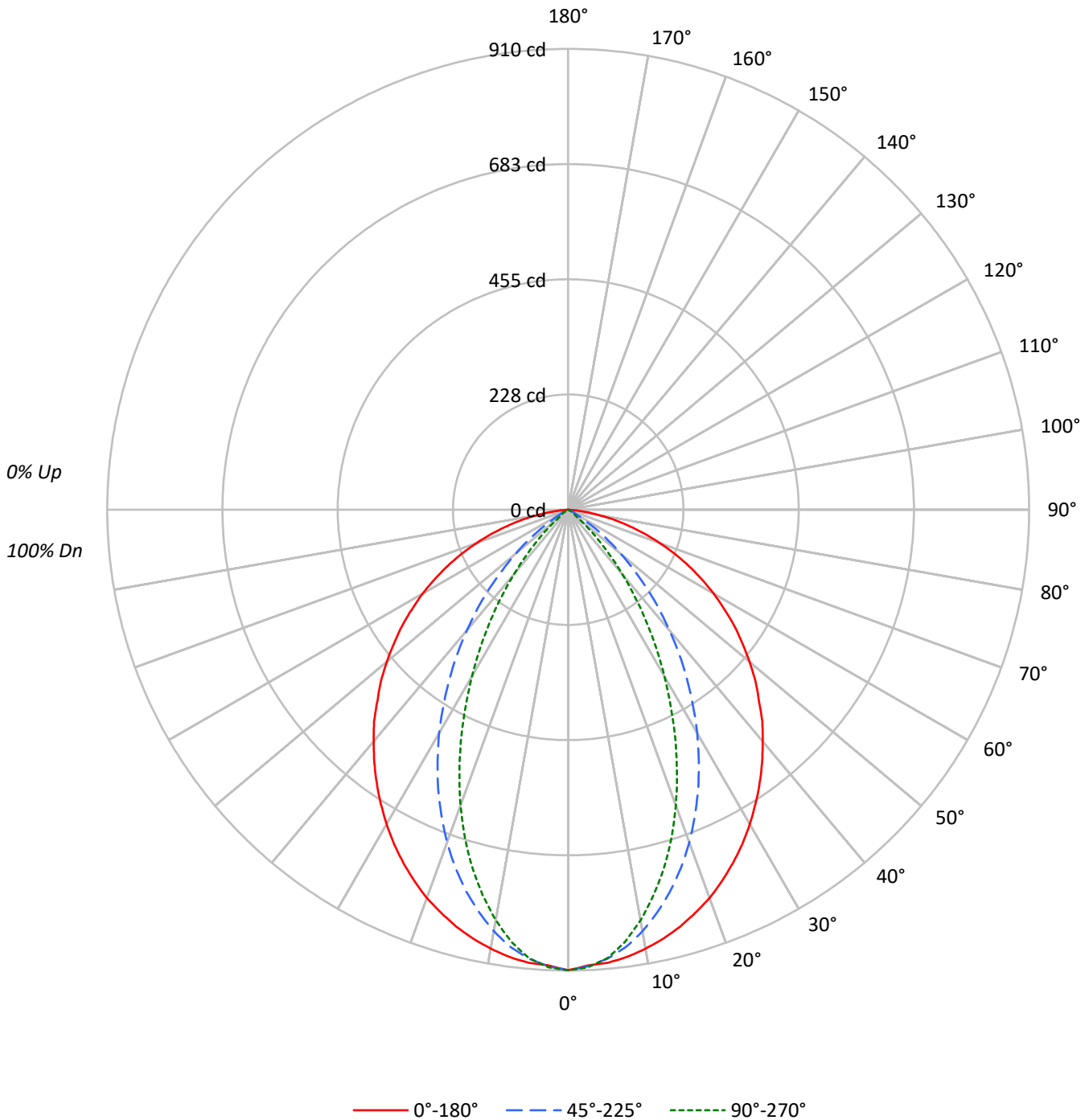
Lumens per Lamp: N/A
Luminaire Lumens: 1271.3 lumens
Efficiency: N/A
Efficacy: 48.2 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 0.81 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

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°	8041	8041	8041
5°	7970	7898	7890
10°	7901	7589	7389
15°	7803	7134	6693
20°	7677	6578	5848
25°	7507	5924	4880
30°	7319	5198	3878
35°	7113	4408	2887
40°	6895	3592	1924
45°	6657	2743	1059
50°	6428	1876	294
55°	6172	1017	193
60°	5865	315	110
65°	5485	205	56
70°	4956	93	23
75°	4263	31	0
80°	3223	0	0
85°	1359	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6657 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.9	6.6
10°-20°	220.3	17.3
20°-30°	284.7	22.4
30°-40°	272.1	21.4
40°-50°	203.5	16.0
50°-60°	121.1	9.5
60°-70°	61.5	4.8
70°-80°	21.4	1.7
80°-90°	2.9	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°	588.8	46.3
0°-40°	860.9	67.7
0°-60°	1185.5	93.3
0°-90°	1271.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1271.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	898	905	890	886	889	85
15°	852	835	779	743	731	240
25°	770	716	607	527	500	354
35°	659	568	408	304	268	412
45°	532	408	219	117	85	412
55°	400	249	66	15	12	357
65°	262	101	10	4	3	259
75°	125	13	1	1	0	132
85°	13	0	0	0	0	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	909.5	909.5	909.5	909.5	909.5
2.5°	900.6	911.3	902.4	903.3	904.2
5°	898.0	905.1	889.9	885.5	889.0
7.5°	890.8	893.5	871.2	859.6	860.5
10°	880.1	877.4	845.3	825.7	823.0
12.5°	867.6	858.7	814.1	785.6	779.4
15°	852.5	834.6	779.4	742.8	731.2
17.5°	834.6	808.8	741.0	692.9	678.6
20°	815.9	780.2	699.1	639.4	621.5
22.5°	793.6	748.1	653.6	583.2	560.9
25°	769.5	716.0	607.3	527.0	500.2
27.5°	744.6	681.3	558.2	469.9	438.7
30°	716.9	644.7	509.2	412.0	379.9
32.5°	688.4	607.3	458.3	358.5	322.8
35°	659.0	568.0	408.4	304.1	267.5
37.5°	628.7	528.8	360.3	252.4	214.9
40°	597.4	488.7	311.2	203.3	166.7
42.5°	567.1	448.5	264.8	156.9	123.1
45°	532.4	408.4	219.4	116.8	84.7
47.5°	501.1	369.2	175.7	79.4	49.9
50°	467.3	327.3	136.4	46.4	21.4
52.5°	433.4	288.0	99.9	20.5	16.1
55°	400.4	248.8	66.0	15.2	12.5
57.5°	365.6	209.6	35.7	11.6	8.9
60°	331.7	171.2	17.8	8.9	6.2
62.5°	296.9	134.6	14.3	5.4	3.6
65°	262.2	100.8	9.8	3.6	2.7
67.5°	227.4	68.7	6.2	1.8	0.9
70°	191.7	41.9	3.6	0.9	0.9
72.5°	157.8	21.4	1.8	0.9	0.9
75°	124.8	13.4	0.9	0.9	0.0
77.5°	92.7	7.1	0.9	0.9	0.0
80°	63.3	2.7	0.0	0.0	0.0
82.5°	36.6	0.9	0.0	0.0	0.0
85°	13.4	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	17.70	19.03	18.06	19.34	19.66	0.00	0.00	0.00	0.00	0.00
	3H	19.24	20.42	19.62	20.75	21.11	0.00	0.00	0.00	0.00	0.00
	4H	19.83	20.93	20.24	21.28	21.66	0.00	0.00	0.00	0.00	0.00
	6H	20.25	21.26	20.67	21.63	22.02	0.00	0.00	0.00	0.00	0.00
	8H	20.35	21.30	20.78	21.69	22.10	0.00	0.00	0.00	0.00	0.00
	12H	20.37	21.28	20.80	21.66	22.09	0.00	0.00	0.00	0.00	0.00
4H	2H	17.48	18.57	17.88	18.92	19.31	0.00	0.00	0.00	0.00	0.00
	3H	19.04	19.93	19.45	20.34	20.74	0.00	0.00	0.00	0.00	0.00
	4H	19.62	20.42	20.06	20.84	21.28	0.00	0.00	0.00	0.00	0.00
	6H	20.08	20.77	20.55	21.22	21.68	0.00	0.00	0.00	0.00	0.00
	8H	20.20	20.84	20.67	21.29	21.76	0.00	0.00	0.00	0.00	0.00
	12H	20.24	20.81	20.73	21.29	21.77	0.00	0.00	0.00	0.00	0.00
8H	4H	19.49	20.13	19.96	20.57	21.05	0.00	0.00	0.00	0.08	0.56
	6H	19.93	20.45	20.43	20.95	21.43	0.00	0.00	0.00	0.00	0.41
	8H	20.04	20.51	20.57	21.03	21.52	0.00	0.00	0.00	0.00	0.32
	12H	20.09	20.51	20.61	21.00	21.57	0.00	0.00	0.00	0.00	0.28
12H	4H	19.44	20.01	19.93	20.49	20.96	0.00	0.00	0.00	0.46	0.93
	6H	19.86	20.33	20.39	20.85	21.34	0.00	0.00	0.00	0.28	0.78
	8H	20.00	20.41	20.52	20.91	21.48	0.00	0.00	0.00	0.16	0.74