

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1061011

Luminaire Tested: S124RDR-H795D940-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061011
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D940-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

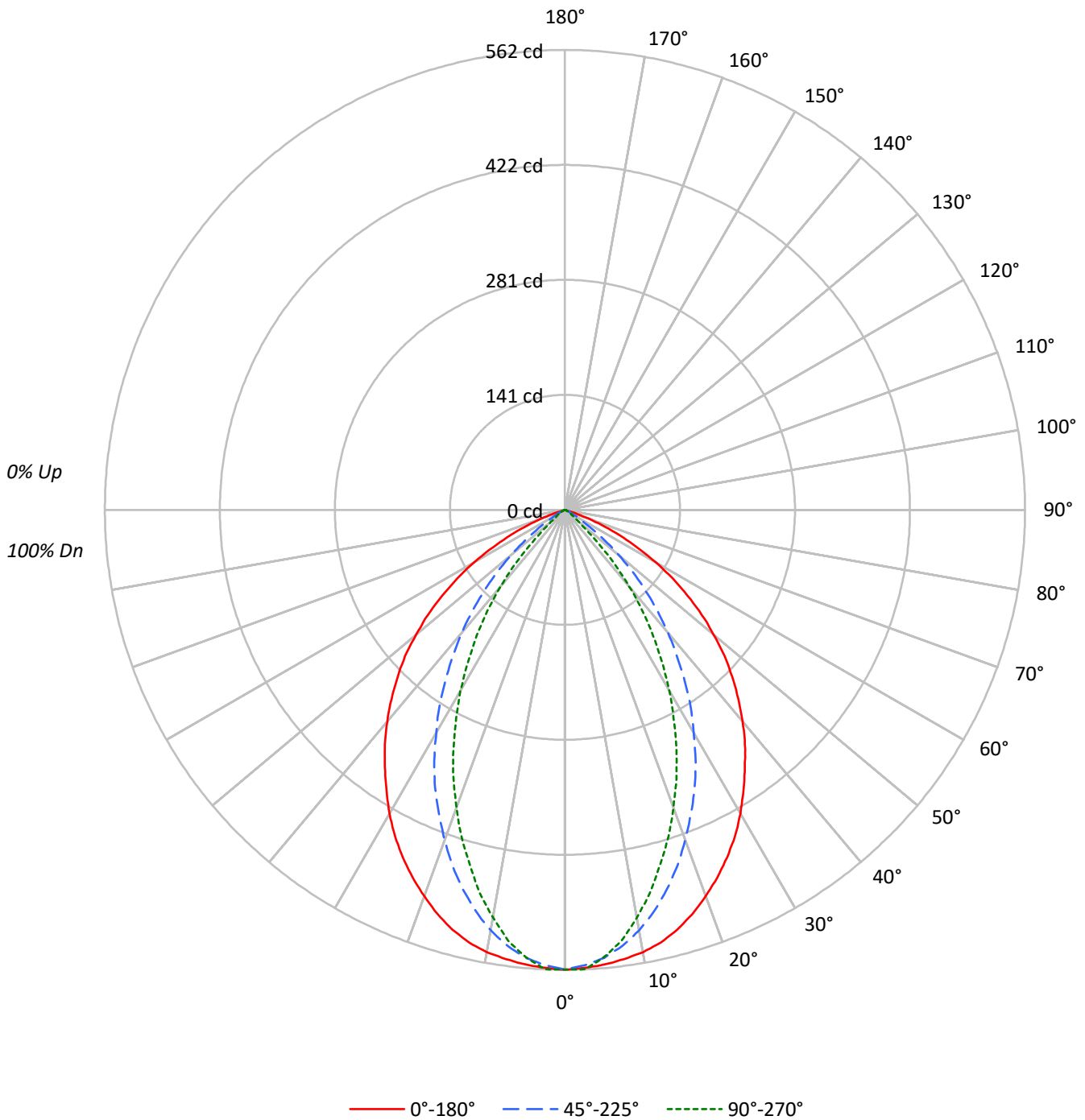
Lumens per Lamp: N/A
Luminaire Lumens: 733.6 lumens
Efficiency: N/A
Efficacy: 31.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4838	4838	4838
5°	4821	4751	4744
10°	4799	4564	4423
15°	4733	4285	4002
20°	4605	3936	3548
25°	4450	3564	3062
30°	4262	3124	2535
35°	4028	2680	1971
40°	3796	2200	1378
45°	3519	1690	682
50°	3176	1141	228
55°	2743	586	159
60°	2196	210	112
65°	1506	116	49
70°	675	60	40
75°	0	27	27
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3519 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.9	7.1
10°-20°	136.0	18.5
20°-30°	176.0	24.0
30°-40°	167.3	22.8
40°-50°	118.5	16.1
50°-60°	60.8	8.3
60°-70°	21.3	2.9
70°-80°	1.8	0.2
80°-90°	0.0	0.0
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°	363.9	49.6
0°-40°	531.2	72.4
0°-60°	710.5	96.9
0°-90°	733.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	733.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	562	562	562	562	562	
5°	558	558	550	550	549	53
15°	531	515	481	458	449	149
25°	468	432	375	335	322	215
35°	383	327	255	205	188	240
45°	289	222	139	80	56	222
55°	183	120	39	11	11	163
65°	74	36	6	3	2	73
75°	0	1	1	1	1	6
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	561.8	561.8	561.8	561.8	561.8
2.5°	560.2	561.8	556.9	561.0	561.8
5°	557.7	558.5	549.6	549.6	548.8
7.5°	553.7	552.0	537.4	531.7	530.9
10°	548.8	543.1	522.0	509.8	505.8
12.5°	541.5	530.9	502.5	484.7	479.8
15°	530.9	514.7	480.6	457.9	448.9
17.5°	517.9	496.8	456.2	428.6	419.7
20°	502.5	475.7	429.5	398.6	387.2
22.5°	486.3	455.4	401.9	366.9	355.6
25°	468.4	431.9	375.1	335.3	322.3
27.5°	449.8	406.7	345.8	304.4	287.4
30°	428.6	381.6	314.2	271.2	254.9
32.5°	405.9	354.0	285.8	239.5	220.0
35°	383.2	327.2	254.9	205.4	187.5
37.5°	361.3	302.0	224.1	172.1	155.1
40°	337.7	274.4	195.7	142.1	122.6
42.5°	313.4	247.6	166.4	111.2	90.1
45°	289.0	222.4	138.8	79.6	56.0
47.5°	264.7	195.7	112.0	50.3	30.0
50°	237.1	169.7	85.2	26.8	17.0
52.5°	211.1	145.3	60.9	15.4	13.0
55°	182.7	120.2	39.0	11.4	10.6
57.5°	155.9	95.8	21.9	8.9	8.1
60°	127.5	73.9	12.2	7.3	6.5
62.5°	99.0	53.6	8.1	4.9	4.1
65°	73.9	35.7	5.7	3.2	2.4
67.5°	48.7	20.3	4.1	1.6	1.6
70°	26.8	9.7	2.4	1.6	1.6
72.5°	9.7	3.2	1.6	0.8	0.8
75°	0.0	0.8	0.8	0.8	0.8
77.5°	0.0	0.0	0.0	0.0	0.8
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	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	14.01	15.26	14.37	15.58	15.89	0.00	0.00	0.00	0.00	0.00
	3H	14.28	15.39	14.66	15.72	16.09	0.00	0.00	0.00	0.00	0.00
	4H	14.21	15.23	14.61	15.58	15.97	0.00	0.00	0.00	0.00	0.00
	6H	14.12	15.06	14.54	15.43	15.83	0.00	0.00	0.00	0.00	0.00
	8H	14.07	14.96	14.51	15.35	15.76	0.00	0.00	0.00	0.00	0.00
	12H	14.03	14.87	14.46	15.26	15.69	0.00	0.00	0.00	0.00	0.00
4H	2H	13.78	14.80	14.18	15.16	15.54	0.00	0.00	0.00	0.00	0.00
	3H	14.06	14.89	14.48	15.30	15.70	0.00	0.00	0.00	0.00	0.00
	4H	13.97	14.71	14.41	15.13	15.57	0.00	0.00	0.00	0.00	0.00
	6H	13.88	14.51	14.35	14.96	15.43	0.00	0.00	0.00	0.00	0.00
	8H	13.82	14.41	14.29	14.86	15.33	0.00	0.00	0.00	0.00	0.00
	12H	13.77	14.29	14.26	14.77	15.25	0.00	0.00	0.00	0.00	0.00
8H	4H	13.82	14.41	14.29	14.86	15.33	0.00	0.00	0.00	0.00	0.00
	6H	13.71	14.19	14.22	14.69	15.17	0.00	0.00	0.00	0.00	0.00
	8H	13.65	14.07	14.17	14.59	15.09	0.00	0.00	0.00	0.00	0.00
	12H	13.60	13.97	14.11	14.47	15.04	0.00	0.00	0.00	0.00	0.00
12H	4H	13.77	14.29	14.26	14.77	15.25	0.00	0.00	0.00	0.00	0.00
	6H	13.65	14.07	14.17	14.59	15.09	0.00	0.00	0.00	0.00	0.00
	8H	13.60	13.97	14.11	14.47	15.04	0.00	0.00	0.00	0.00	0.00