

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: P1061018

Luminaire Tested: S124RDR-H795D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061018
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D940-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

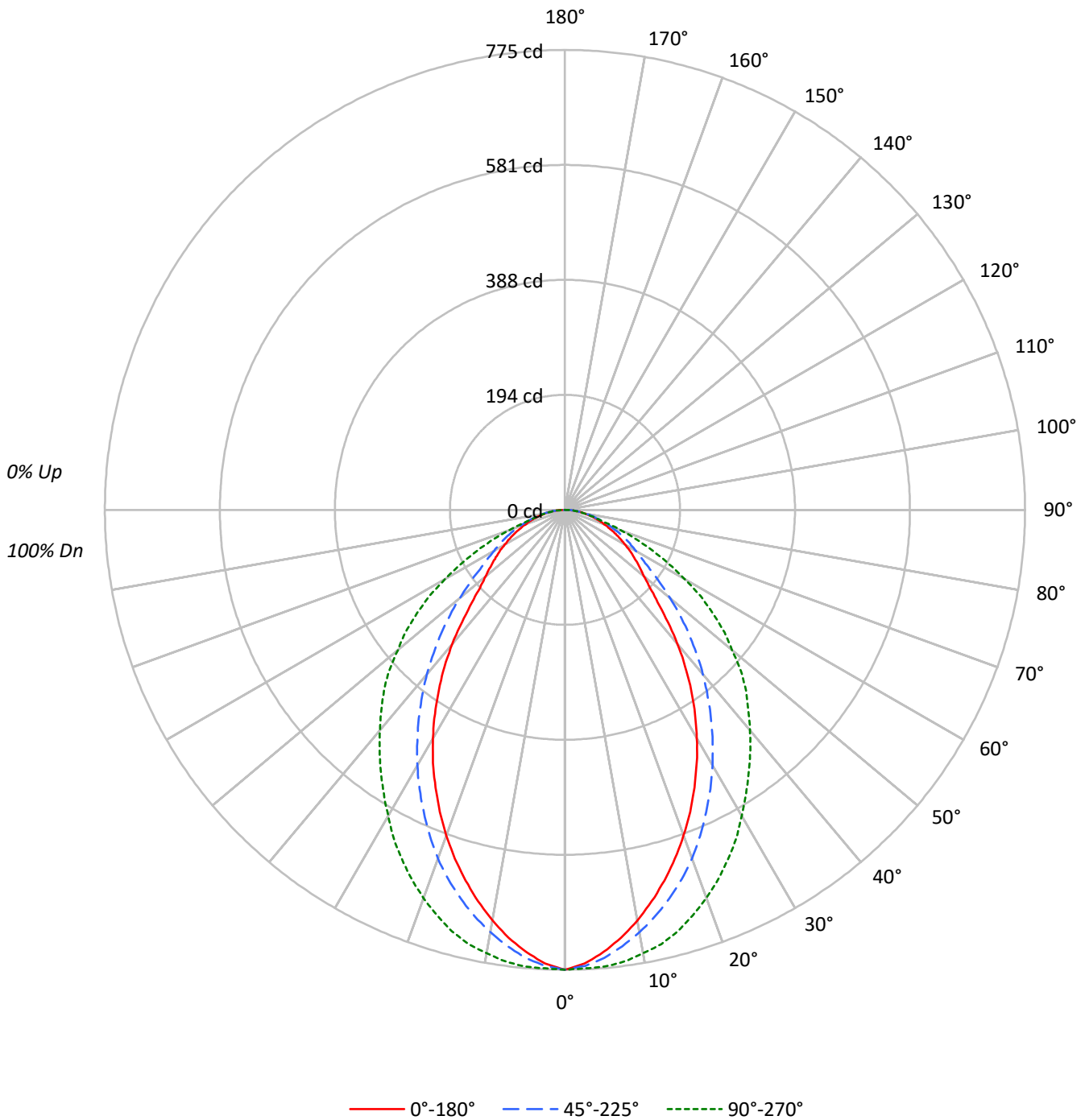
Lumens per Lamp: N/A
Luminaire Lumens: 1410.8 lumens
Efficiency: N/A
Efficacy: 60.0 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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									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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																												
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75																												
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																												
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57																												
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50																												
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45																												
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41																												
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37																												
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34																												
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6673	6673	6673
5°	6467	6551	6678
10°	6144	6321	6634
15°	5764	6047	6553
20°	5352	5732	6379
25°	4901	5341	6174
30°	4418	4943	5920
35°	3894	4509	5679
40°	3315	4064	5451
45°	2690	3591	5252
50°	2328	3091	4919
55°	2159	2621	4561
60°	2015	2365	4001
65°	1887	2217	3327
70°	1760	2044	2515
75°	1677	1893	1810
80°	1572	1731	1532
85°	1443	1601	1205

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5252 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.6	5.1
10°-20°	192.3	13.6
20°-30°	262.6	18.6
30°-40°	275.1	19.5
40°-50°	238.1	16.9
50°-60°	178.9	12.7
60°-70°	115.4	8.2
70°-80°	59.2	4.2
80°-90°	17.7	1.3
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°	526.4	37.3
0°-40°	801.5	56.8
0°-60°	1218.6	86.4
0°-90°	1410.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1410.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	775	775	775	775	775	
5°	748	760	758	764	772	70
15°	647	663	678	709	735	181
25°	516	535	562	606	650	237
35°	370	392	429	486	540	231
45°	221	244	295	367	431	174
55°	144	149	175	249	304	129
65°	93	94	109	132	163	92
75°	50	56	57	56	54	53
85°	15	17	16	15	12	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	774.9	774.9	774.9	774.9	774.9
2.5°	765.2	774.9	769.2	770.9	773.3
5°	748.1	759.5	757.9	763.5	772.5
7.5°	727.0	739.2	741.6	754.6	767.6
10°	702.6	716.4	722.9	742.4	758.7
12.5°	675.8	690.4	701.8	726.2	749.7
15°	646.6	662.8	678.3	709.1	735.1
17.5°	616.5	632.8	653.1	687.2	716.4
20°	584.0	601.9	625.5	661.2	696.1
22.5°	550.7	569.4	594.6	633.6	674.2
25°	515.8	535.3	562.1	606.0	649.8
27.5°	480.9	500.4	530.4	576.7	624.6
30°	444.3	464.6	497.1	547.5	595.4
32.5°	407.8	429.7	463.0	516.6	567.8
35°	370.4	391.5	428.9	485.7	540.2
37.5°	333.0	355.0	394.8	455.7	512.6
40°	294.9	317.6	361.5	425.6	484.9
42.5°	256.7	281.0	327.3	394.8	457.3
45°	220.9	243.7	294.9	367.2	431.3
47.5°	194.1	209.6	262.4	340.3	402.1
50°	173.8	182.0	230.7	311.1	367.2
52.5°	158.4	164.1	201.4	279.4	338.7
55°	143.8	148.6	174.6	249.4	303.8
57.5°	130.8	133.2	154.3	220.1	270.5
60°	117.0	119.4	137.3	188.4	232.3
62.5°	104.8	106.4	123.5	158.4	197.4
65°	92.6	94.2	108.8	131.6	163.3
67.5°	81.2	83.7	95.0	107.2	130.0
70°	69.9	74.7	81.2	86.9	99.9
72.5°	60.1	65.0	68.2	69.9	70.7
75°	50.4	56.0	56.9	56.0	54.4
77.5°	40.6	45.5	45.5	43.9	42.2
80°	31.7	35.7	34.9	33.3	30.9
82.5°	23.6	26.0	25.2	23.6	21.1
85°	14.6	17.1	16.2	15.4	12.2
87.5°	7.3	9.7	8.9	8.1	4.9
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	13.03	14.51	13.39	14.82	15.14	16.80	18.28	17.17	18.60	18.91
	3H	14.68	16.01	15.06	16.34	16.70	17.91	19.24	18.29	19.57	19.93
	4H	15.35	16.60	15.75	16.95	17.33	18.20	19.45	18.60	19.80	20.18
	6H	15.86	17.01	16.28	17.38	17.77	18.40	19.55	18.81	19.92	20.31
	8H	16.05	17.14	16.47	17.53	17.93	18.45	19.55	18.88	19.94	20.34
	12H	16.17	17.22	16.60	17.60	18.03	18.48	19.53	18.91	19.91	20.34
4H	2H	13.81	15.05	14.21	15.40	15.78	16.96	18.20	17.36	18.55	18.93
	3H	15.67	16.70	16.08	17.10	17.51	18.27	19.30	18.68	19.70	20.11
	4H	16.48	17.41	16.91	17.82	18.26	18.68	19.61	19.11	20.02	20.46
	6H	17.13	17.93	17.58	18.38	18.84	18.99	19.80	19.45	20.24	20.71
	8H	17.36	18.11	17.82	18.55	19.02	19.09	19.84	19.55	20.29	20.75
	12H	17.53	18.20	18.01	18.68	19.15	19.15	19.82	19.63	20.30	20.77
8H	4H	16.83	17.58	17.29	18.03	18.50	18.81	19.57	19.28	20.01	20.48
	6H	17.62	18.24	18.12	18.74	19.21	19.22	19.85	19.72	20.34	20.82
	8H	17.94	18.50	18.46	19.01	19.50	19.37	19.93	19.89	20.44	20.93
	12H	18.21	18.70	18.72	19.19	19.76	19.50	19.99	20.01	20.49	21.05
12H	4H	16.86	17.53	17.34	18.01	18.48	18.82	19.49	19.30	19.97	20.44
	6H	17.68	18.24	18.20	18.75	19.24	19.25	19.81	19.76	20.32	20.80
	8H	18.07	18.57	18.58	19.06	19.62	19.45	19.94	19.96	20.43	21.00