

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: P1060870

Luminaire Tested: S124RDR-H575D830-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060870
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D830-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

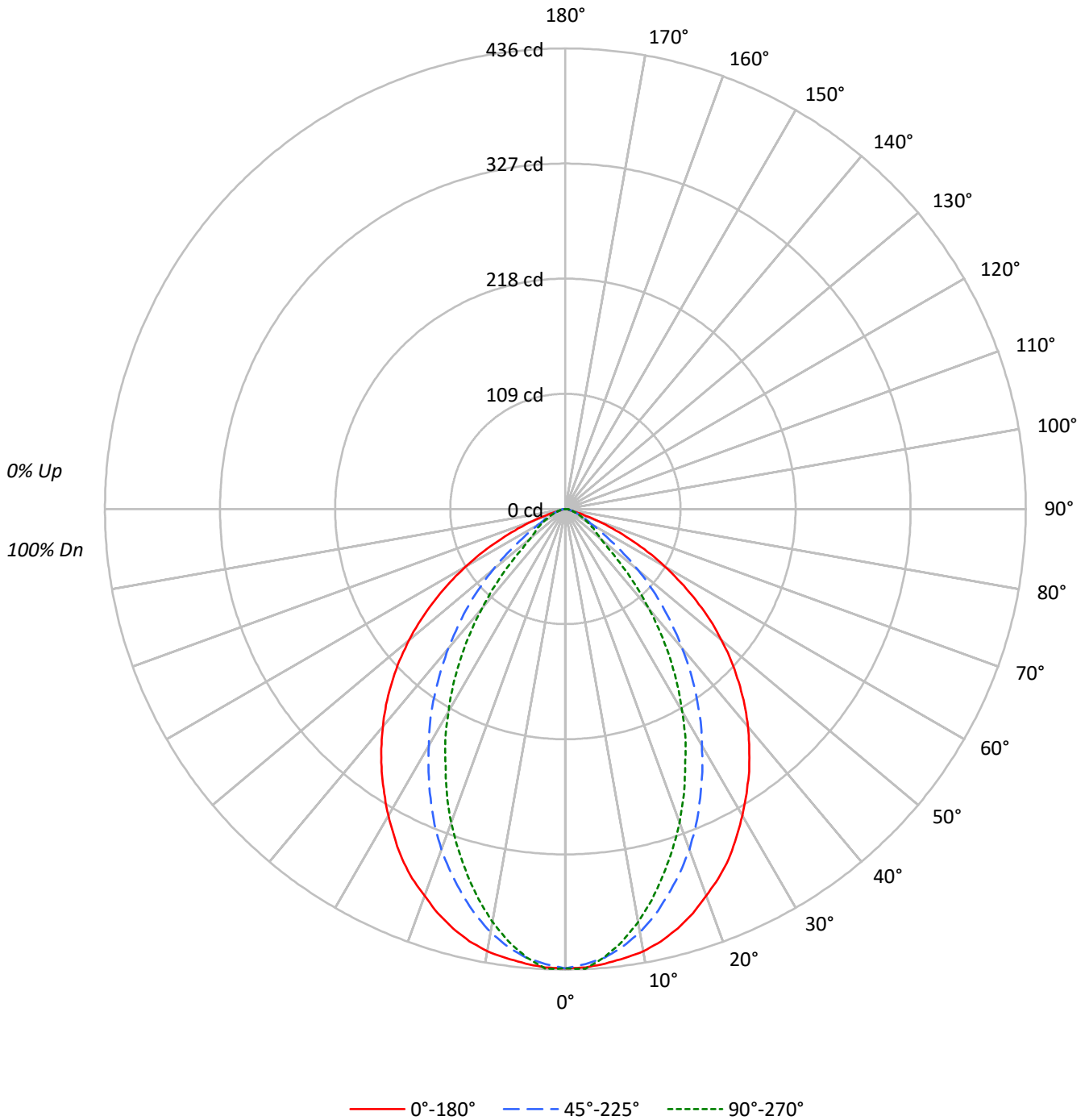
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 641.4 lumens
Efficiency: N/A
Efficacy: 36.9 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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	108	105	102	109	106	103	101	102	100	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	76	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3746	3746	3746
5°	3734	3686	3681
10°	3718	3557	3471
15°	3665	3364	3195
20°	3571	3144	2898
25°	3476	2870	2550
30°	3333	2571	2199
35°	3188	2274	1817
40°	3024	1936	1377
45°	2828	1582	926
50°	2586	1199	575
55°	2271	791	488
60°	1879	486	401
65°	1361	375	324
70°	740	277	247
75°	163	203	223
80°	124	154	183
85°	119	119	178

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2828 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.3	6.3
10°-20°	107.0	16.7
20°-30°	141.8	22.1
30°-40°	140.7	21.9
40°-50°	108.3	16.9
50°-60°	64.6	10.1
60°-70°	29.3	4.6
70°-80°	7.6	1.2
80°-90°	1.7	0.3
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°	289.2	45.1
0°-40°	429.9	67.0
0°-60°	602.8	94.0
0°-90°	641.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	641.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	435	435	435	435	435	
5°	432	433	426	426	426	41
15°	411	401	377	365	358	116
25°	366	339	302	277	268	168
35°	303	265	216	183	173	189
45°	232	187	130	91	76	179
55°	151	108	53	33	32	135
65°	67	40	18	16	16	67
75°	5	6	6	7	7	10
85°	1	1	1	2	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	435.0	435.0	435.0	435.0	435.0
2.5°	434.4	435.0	431.4	434.4	435.6
5°	432.0	432.6	426.4	426.4	425.8
7.5°	428.9	427.7	417.9	414.2	413.0
10°	425.2	420.9	406.8	399.5	397.0
12.5°	419.1	412.4	393.4	382.9	378.7
15°	411.1	400.7	377.4	364.6	358.4
17.5°	401.3	388.5	360.9	344.3	337.6
20°	389.7	372.5	343.1	322.3	316.2
22.5°	378.7	357.2	323.5	299.6	292.9
25°	365.8	339.4	302.1	276.9	268.4
27.5°	350.5	322.3	280.6	254.9	246.3
30°	335.2	303.9	258.6	231.6	221.2
32.5°	319.2	284.9	238.3	207.7	197.9
35°	303.3	265.3	216.3	183.2	172.8
37.5°	286.1	245.7	194.2	159.9	148.3
40°	269.0	226.7	172.2	137.2	122.5
42.5°	251.2	207.1	150.7	114.0	99.3
45°	232.2	186.9	129.9	90.7	76.0
47.5°	213.2	167.9	109.1	68.0	54.5
50°	193.0	147.7	89.5	49.6	42.9
52.5°	172.8	128.1	69.8	38.6	36.8
55°	151.3	107.8	52.7	33.1	32.5
57.5°	129.3	89.5	38.0	28.8	27.6
60°	109.1	72.3	28.2	24.5	23.3
62.5°	88.2	54.5	23.3	20.2	19.0
65°	66.8	39.8	18.4	15.9	15.9
67.5°	48.4	27.0	14.7	12.9	12.3
70°	29.4	16.5	11.0	10.4	9.8
72.5°	14.7	9.8	8.6	8.0	8.0
75°	4.9	6.1	6.1	6.7	6.7
77.5°	3.7	4.3	4.3	4.9	4.9
80°	2.5	3.1	3.1	3.7	3.7
82.5°	1.8	1.8	2.5	2.5	3.1
85°	1.2	1.2	1.2	1.8	1.8
87.5°	0.6	0.6	0.6	1.2	1.2
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	13.71	15.04	14.07	15.36	15.67	5.26	6.59	5.62	6.91	7.22
	3H	14.22	15.40	14.60	15.73	16.09	6.08	7.26	6.46	7.59	7.95
	4H	14.18	15.28	14.59	15.63	16.02	6.36	7.46	6.76	7.81	8.19
	6H	14.12	15.13	14.54	15.50	15.89	6.53	7.54	6.94	7.91	8.30
	8H	14.08	15.04	14.51	15.43	15.83	6.60	7.55	7.03	7.94	8.35
	12H	14.04	14.96	14.48	15.34	15.77	6.64	7.55	7.07	7.94	8.37
4H	2H	13.55	14.65	13.96	15.00	15.38	5.70	6.80	6.10	7.15	7.53
	3H	14.11	15.00	14.52	15.40	15.81	6.67	7.56	7.08	7.96	8.37
	4H	14.07	14.87	14.51	15.29	15.73	7.03	7.82	7.46	8.24	8.69
	6H	14.02	14.71	14.48	15.15	15.62	7.28	7.97	7.74	8.41	8.88
	8H	13.98	14.61	14.44	15.06	15.53	7.37	8.01	7.84	8.46	8.93
	12H	13.94	14.50	14.42	14.98	15.46	7.45	8.01	7.93	8.49	8.97
8H	4H	13.96	14.60	14.43	15.05	15.52	7.11	7.75	7.58	8.20	8.67
	6H	13.90	14.42	14.41	14.92	15.40	7.43	7.95	7.93	8.45	8.93
	8H	13.86	14.32	14.38	14.84	15.33	7.56	8.03	8.09	8.55	9.04
	12H	13.82	14.24	14.34	14.73	15.30	7.70	8.11	8.21	8.61	9.18
12H	4H	13.92	14.49	14.41	14.97	15.44	7.09	7.65	7.58	8.14	8.61
	6H	13.85	14.32	14.37	14.83	15.32	7.41	7.88	7.93	8.39	8.89
	8H	13.82	14.23	14.34	14.73	15.30	7.59	8.00	8.10	8.49	9.07