

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: P1060231

Luminaire Tested: S124RDRP-S1020D835-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060231
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: S124RDRP-S1020D835-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

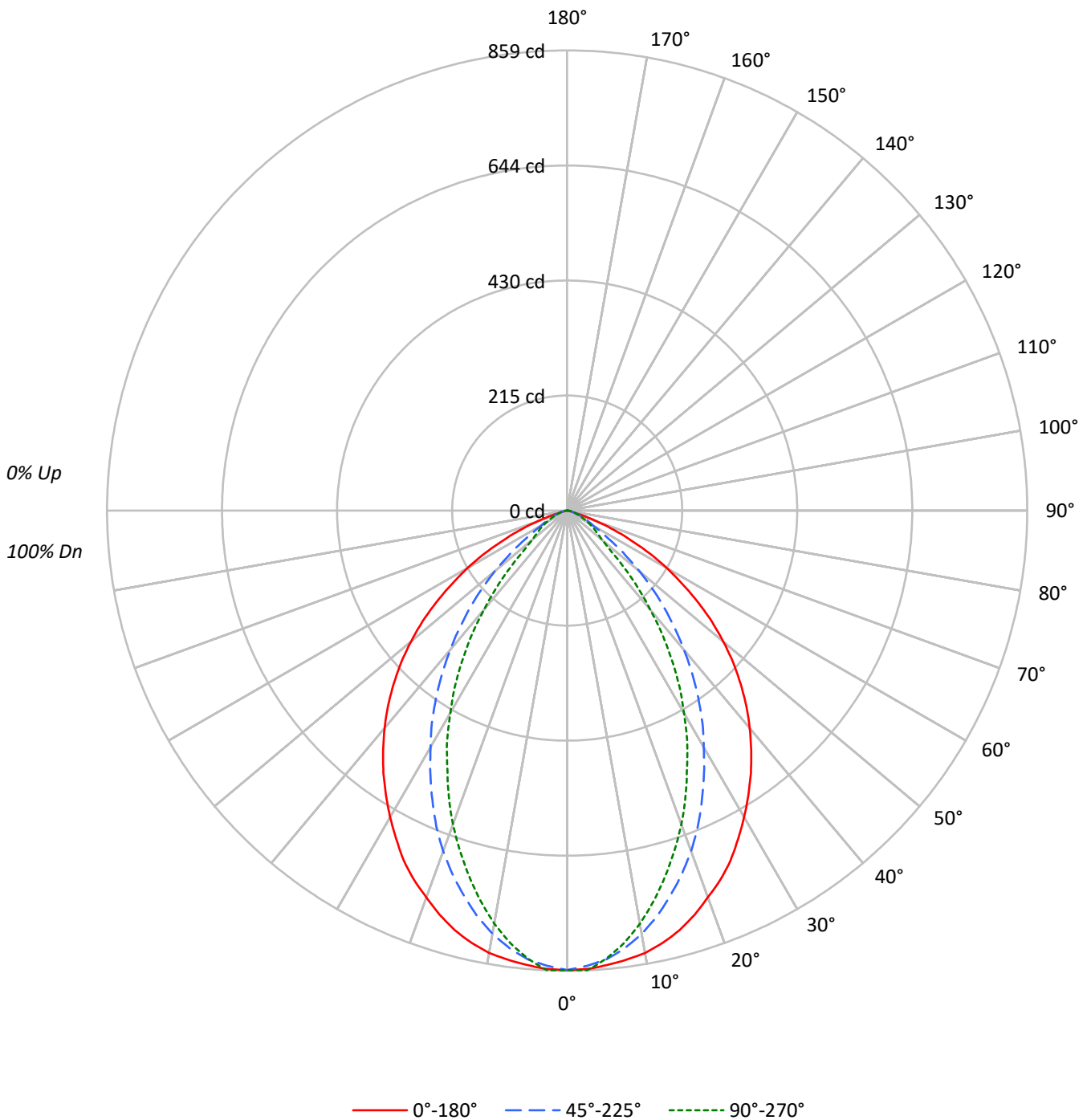
Lumens per Lamp: N/A
Luminaire Lumens: 1264.7 lumens
Efficiency: N/A
Efficacy: 36.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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°	7387	7387	7387
5°	7362	7269	7258
10°	7332	7014	6846
15°	7227	6634	6301
20°	7041	6200	5713
25°	6853	5659	5028
30°	6572	5069	4336
35°	6286	4483	3582
40°	5962	3816	2716
45°	5576	3119	1824
50°	5099	2363	1133
55°	4480	1560	961
60°	3705	958	791
65°	2683	738	640
70°	1460	546	486
75°	323	403	443
80°	238	298	357
85°	237	237	356

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5576 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.5	6.3
10°-20°	211.1	16.7
20°-30°	279.6	22.1
30°-40°	277.5	21.9
40°-50°	213.6	16.9
50°-60°	127.3	10.1
60°-70°	57.9	4.6
70°-80°	15.0	1.2
80°-90°	3.3	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°	570.2	45.1
0°-40°	847.7	67.0
0°-60°	1188.5	94.0
0°-90°	1264.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1264.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	858	858	858	858	858	
5°	852	853	841	841	840	81
15°	811	790	744	719	707	228
25°	721	669	596	546	529	331
35°	598	523	426	361	341	373
45°	458	368	256	179	150	353
55°	298	213	104	65	64	266
65°	132	78	36	31	31	132
75°	10	12	12	13	13	20
85°	2	2	2	4	4	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	857.8	857.8	857.8	857.8	857.8
2.5°	856.6	857.8	850.5	856.6	859.0
5°	851.7	853.0	840.9	840.9	839.7
7.5°	845.7	843.3	824.0	816.7	814.3
10°	838.5	830.0	802.2	787.7	782.9
12.5°	826.4	813.1	775.6	755.1	746.6
15°	810.7	790.1	744.2	718.8	706.8
17.5°	791.3	766.0	711.6	679.0	665.7
20°	768.4	734.6	676.6	635.5	623.4
22.5°	746.6	704.4	637.9	590.8	577.5
25°	721.3	669.3	595.6	546.1	529.2
27.5°	691.1	635.5	553.3	502.6	485.7
30°	660.9	599.2	509.8	456.7	436.1
32.5°	629.4	561.8	470.0	409.6	390.2
35°	598.0	523.1	426.5	361.2	340.7
37.5°	564.2	484.5	383.0	315.3	292.4
40°	530.4	447.0	339.5	270.6	241.6
42.5°	495.3	408.4	297.2	224.7	195.7
45°	457.9	368.5	256.1	178.8	149.8
47.5°	420.4	331.0	215.1	134.1	107.5
50°	380.6	291.2	176.4	97.9	84.6
52.5°	340.7	252.5	137.7	76.1	72.5
55°	298.4	212.6	103.9	65.2	64.0
57.5°	254.9	176.4	74.9	56.8	54.4
60°	215.1	142.6	55.6	48.3	45.9
62.5°	174.0	107.5	45.9	39.9	37.5
65°	131.7	78.5	36.2	31.4	31.4
67.5°	95.4	53.2	29.0	25.4	24.2
70°	58.0	32.6	21.7	20.5	19.3
72.5°	29.0	19.3	16.9	15.7	15.7
75°	9.7	12.1	12.1	13.3	13.3
77.5°	7.2	8.5	8.5	9.7	9.7
80°	4.8	6.0	6.0	7.2	7.2
82.5°	3.6	3.6	4.8	4.8	6.0
85°	2.4	2.4	2.4	3.6	3.6
87.5°	1.2	1.2	1.2	2.4	2.4
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	16.07	17.40	16.43	17.71	18.03	7.62	8.95	7.98	9.27	9.58
	3H	16.58	17.76	16.96	18.09	18.45	8.43	9.61	8.81	9.94	10.31
	4H	16.54	17.64	16.94	17.99	18.37	8.72	9.82	9.12	10.17	10.55
	6H	16.48	17.48	16.89	17.86	18.25	8.89	9.90	9.30	10.27	10.66
	8H	16.44	17.39	16.87	17.78	18.19	8.95	9.91	9.38	10.30	10.70
	12H	16.40	17.31	16.83	17.69	18.13	9.00	9.91	9.43	10.29	10.72
4H	2H	15.91	17.01	16.31	17.36	17.74	8.06	9.16	8.46	9.51	9.89
	3H	16.46	17.36	16.88	17.76	18.16	9.02	9.91	9.43	10.32	10.72
	4H	16.43	17.23	16.87	17.65	18.09	9.39	10.18	9.82	10.60	11.04
	6H	16.38	17.06	16.84	17.51	17.98	9.64	10.32	10.10	10.77	11.23
	8H	16.33	16.97	16.80	17.42	17.89	9.72	10.36	10.19	10.81	11.28
	12H	16.29	16.86	16.78	17.34	17.82	9.80	10.36	10.28	10.84	11.32
8H	4H	16.32	16.96	16.79	17.41	17.88	9.47	10.11	9.94	10.56	11.03
	6H	16.26	16.78	16.76	17.28	17.76	9.78	10.31	10.29	10.80	11.28
	8H	16.21	16.68	16.73	17.20	17.69	9.91	10.38	10.43	10.90	11.39
	12H	16.18	16.59	16.70	17.09	17.66	10.05	10.46	10.56	10.96	11.53
12H	4H	16.28	16.84	16.76	17.33	17.80	9.45	10.01	9.93	10.50	10.97
	6H	16.20	16.67	16.73	17.19	17.68	9.76	10.23	10.29	10.75	11.24
	8H	16.18	16.59	16.69	17.09	17.66	9.93	10.34	10.45	10.84	11.41