

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: P1060883

Luminaire Tested: S124RDR-H575D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060883
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-H575D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

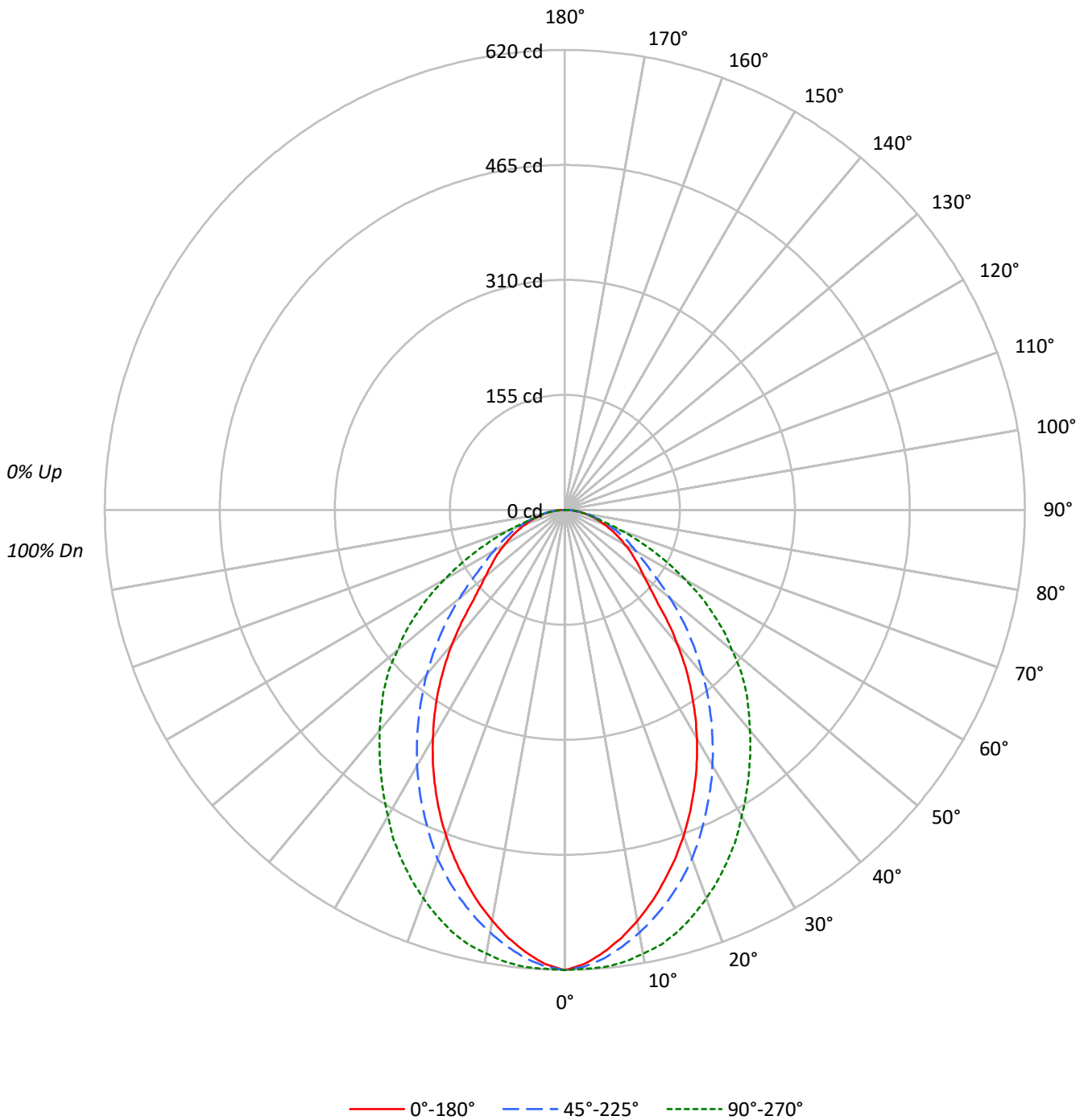
Lumens per Lamp: N/A
Luminaire Lumens: 1129.7 lumens
Efficiency: N/A
Efficacy: 64.9 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P1060883

CATALOG NUMBER: S124RDR-H575D835-X4F0-XX-UDD-WVL-S

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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°	5343	5343	5343
5°	5178	5246	5347
10°	4919	5062	5312
15°	4615	4842	5247
20°	4286	4589	5108
25°	3924	4277	4944
30°	3538	3958	4741
35°	3118	3610	4547
40°	2654	3253	4365
45°	2154	2875	4206
50°	1865	2474	3939
55°	1728	2099	3653
60°	1614	1893	3203
65°	1510	1777	2663
70°	1407	1637	2014
75°	1341	1514	1451
80°	1260	1389	1225
85°	1156	1284	968

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4206 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.3	5.1
10°-20°	154.0	13.6
20°-30°	210.3	18.6
30°-40°	220.3	19.5
40°-50°	190.7	16.9
50°-60°	143.3	12.7
60°-70°	92.4	8.2
70°-80°	47.4	4.2
80°-90°	14.2	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°	421.5	37.3
0°-40°	641.8	56.8
0°-60°	975.8	86.4
0°-90°	1129.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1129.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	620	620	620	620	620	
5°	599	608	607	611	619	56
15°	518	531	543	568	589	145
25°	413	429	450	485	520	190
35°	297	314	343	389	432	185
45°	177	195	236	294	345	139
55°	115	119	140	200	243	103
65°	74	76	87	105	131	74
75°	40	45	46	45	44	43
85°	12	14	13	12	10	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	620.5	620.5	620.5	620.5	620.5
2.5°	612.7	620.5	616.0	617.3	619.2
5°	599.0	608.2	606.9	611.4	618.6
7.5°	582.1	591.9	593.8	604.3	614.7
10°	562.6	573.7	578.9	594.5	607.5
12.5°	541.2	552.9	562.0	581.5	600.4
15°	517.7	530.8	543.1	567.8	588.6
17.5°	493.7	506.7	522.9	550.3	573.7
20°	467.7	482.0	500.8	529.5	557.4
22.5°	441.0	456.0	476.1	507.3	539.9
25°	413.0	428.6	450.1	485.2	520.3
27.5°	385.1	400.7	424.7	461.8	500.2
30°	355.8	372.0	398.1	438.4	476.8
32.5°	326.5	344.1	370.7	413.7	454.7
35°	296.6	313.5	343.4	389.0	432.5
37.5°	266.7	284.2	316.1	364.9	410.4
40°	236.1	254.3	289.4	340.8	388.3
42.5°	205.5	225.1	262.1	316.1	366.2
45°	176.9	195.1	236.1	294.0	345.4
47.5°	155.5	167.8	210.1	272.5	322.0
50°	139.2	145.7	184.7	249.1	294.0
52.5°	126.8	131.4	161.3	223.7	271.2
55°	115.1	119.0	139.8	199.7	243.3
57.5°	104.7	106.7	123.6	176.3	216.6
60°	93.7	95.6	109.9	150.9	186.0
62.5°	83.9	85.2	98.9	126.8	158.1
65°	74.1	75.5	87.2	105.4	130.7
67.5°	65.0	67.0	76.1	85.9	104.1
70°	55.9	59.8	65.0	69.6	80.0
72.5°	48.1	52.0	54.6	55.9	56.6
75°	40.3	44.9	45.5	44.9	43.6
77.5°	32.5	36.4	36.4	35.1	33.8
80°	25.4	28.6	28.0	26.7	24.7
82.5°	18.9	20.8	20.2	18.9	16.9
85°	11.7	13.7	13.0	12.4	9.8
87.5°	5.9	7.8	7.2	6.5	3.9
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	12.26	13.74	12.62	14.05	14.37	16.03	17.51	16.39	17.83	18.14
	3H	13.91	15.24	14.29	15.57	15.93	17.14	18.47	17.52	18.80	19.16
	4H	14.58	15.83	14.98	16.17	16.55	17.43	18.68	17.83	19.03	19.41
	6H	15.09	16.24	15.50	16.61	17.00	17.63	18.78	18.04	19.15	19.54
	8H	15.27	16.37	15.70	16.76	17.16	17.68	18.78	18.11	19.17	19.57
	12H	15.40	16.45	15.83	16.83	17.26	17.71	18.76	18.14	19.14	19.57
4H	2H	13.04	14.28	13.44	14.63	15.01	16.19	17.43	16.59	17.78	18.16
	3H	14.90	15.93	15.31	16.33	16.73	17.50	18.53	17.91	18.93	19.33
	4H	15.71	16.64	16.14	17.05	17.49	17.91	18.84	18.34	19.25	19.69
	6H	16.35	17.16	16.81	17.60	18.07	18.22	19.03	18.68	19.47	19.94
	8H	16.58	17.34	17.05	17.78	18.25	18.32	19.07	18.78	19.52	19.98
	12H	16.75	17.43	17.24	17.91	18.38	18.38	19.05	18.86	19.53	20.00
8H	4H	16.06	16.81	16.52	17.26	17.72	18.04	18.80	18.51	19.24	19.71
	6H	16.85	17.47	17.35	17.96	18.44	18.45	19.08	18.95	19.57	20.05
	8H	17.17	17.73	17.69	18.24	18.73	18.60	19.16	19.12	19.67	20.16
	12H	17.44	17.93	17.95	18.42	18.99	18.73	19.22	19.24	19.72	20.28
12H	4H	16.09	16.76	16.57	17.24	17.71	18.05	18.72	18.53	19.20	19.67
	6H	16.91	17.47	17.43	17.98	18.47	18.47	19.03	18.99	19.55	20.03
	8H	17.30	17.79	17.81	18.29	18.85	18.68	19.17	19.19	19.66	20.23