

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: P1060929

Luminaire Tested: S124RDR-H575D935-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060929
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D935-X4F0-XX-UDD-WVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

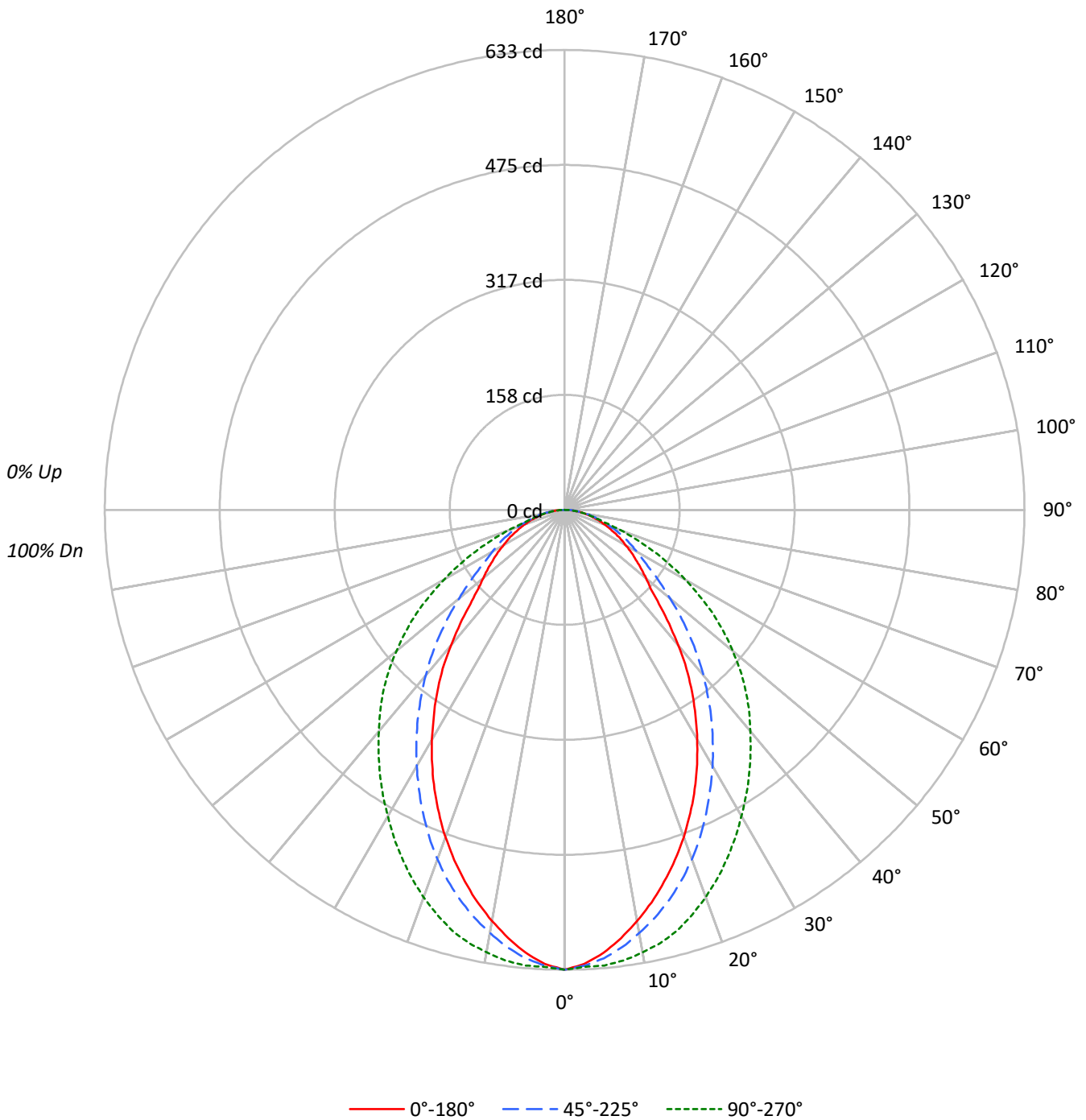
Lumens per Lamp: N/A
Luminaire Lumens: 1161.3 lumens
Efficiency: N/A
Efficacy: 66.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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										
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	0														
RCR																																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100															
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87					87															
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75					75															
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65					65															
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57					57															
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50					50															
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45					45															
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40					40															
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37					37															
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33					33															
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31					31															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5450	5450	5450
5°	5292	5355	5441
10°	5025	5172	5406
15°	4723	4953	5343
20°	4393	4691	5200
25°	4029	4380	5029
30°	3631	4049	4839
35°	3215	3703	4657
40°	2733	3343	4471
45°	2237	2953	4298
50°	1959	2536	4044
55°	1800	2186	3741
60°	1669	1969	3300
65°	1563	1848	2761
70°	1465	1692	2072
75°	1377	1547	1510
80°	1279	1418	1279
85°	1166	1383	1107

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4298 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.5	5.0
10°-20°	157.4	13.6
20°-30°	215.1	18.5
30°-40°	226.1	19.5
40°-50°	196.2	16.9
50°-60°	148.0	12.7
60°-70°	95.9	8.3
70°-80°	49.2	4.2
80°-90°	14.9	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°	431.0	37.1
0°-40°	657.1	56.6
0°-60°	1001.3	86.2
0°-90°	1161.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1161.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	633	633	633	633	633	
5°	612	621	620	624	630	57
15°	530	543	556	581	599	149
25°	424	439	461	496	529	194
35°	306	323	352	399	443	190
45°	184	201	242	303	353	145
55°	120	123	146	207	249	108
65°	77	78	91	110	136	76
75°	41	46	46	47	45	44
85°	12	15	14	13	11	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	632.9	632.9	632.9	632.9	632.9
2.5°	625.6	633.5	627.9	629.0	629.5
5°	612.2	620.6	619.5	624.5	629.5
7.5°	594.8	604.9	607.1	617.2	625.6
10°	574.7	585.9	591.5	607.7	618.3
12.5°	553.4	564.6	574.7	595.4	610.5
15°	529.8	542.7	555.6	580.8	599.3
17.5°	505.2	518.6	534.9	562.3	584.2
20°	479.4	492.9	511.9	541.6	567.4
22.5°	452.0	467.1	487.3	519.2	549.4
25°	424.0	439.1	461.0	496.2	529.3
27.5°	394.9	410.5	434.1	473.3	508.6
30°	365.2	382.0	407.2	448.6	486.7
32.5°	334.9	352.9	379.7	424.0	465.4
35°	305.8	322.6	352.3	399.3	443.0
37.5°	275.6	292.4	324.3	375.3	420.6
40°	243.1	261.6	297.4	350.1	397.7
42.5°	212.8	231.3	270.0	326.0	375.8
45°	183.7	201.1	242.5	303.0	352.9
47.5°	161.3	173.6	215.1	280.6	328.2
50°	146.2	151.8	189.3	256.0	301.9
52.5°	132.7	137.2	165.8	231.3	276.1
55°	119.9	123.2	145.6	206.7	249.2
57.5°	108.7	110.3	127.7	182.0	220.1
60°	96.9	99.1	114.3	156.8	191.6
62.5°	87.4	88.5	102.5	132.7	163.0
65°	76.7	78.4	90.7	109.8	135.5
67.5°	67.2	70.0	78.4	89.6	107.0
70°	58.2	62.2	67.2	72.8	82.3
72.5°	49.8	54.3	57.1	59.4	57.7
75°	41.4	46.5	46.5	47.0	45.4
77.5°	33.6	38.1	37.5	37.0	34.7
80°	25.8	29.7	28.6	28.0	25.8
82.5°	19.0	21.8	20.7	20.2	17.4
85°	11.8	14.6	14.0	13.4	11.2
87.5°	5.6	8.4	7.8	7.3	5.0
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	12.39	13.88	12.76	14.19	14.51	16.13	17.62	16.50	17.93	18.25
	3H	14.06	15.39	14.44	15.72	16.08	17.26	18.59	17.64	18.92	19.28
	4H	14.73	15.97	15.13	16.32	16.70	17.55	18.80	17.95	19.15	19.53
	6H	15.23	16.39	15.65	16.75	17.15	17.75	18.91	18.17	19.27	19.67
	8H	15.41	16.51	15.84	16.90	17.30	17.81	18.91	18.24	19.30	19.70
	12H	15.53	16.58	15.96	16.96	17.39	17.84	18.89	18.27	19.27	19.70
4H	2H	13.18	14.43	13.58	14.78	15.16	16.30	17.55	16.70	17.89	18.27
	3H	15.06	16.09	15.47	16.49	16.89	17.63	18.66	18.04	19.06	19.46
	4H	15.86	16.79	16.29	17.21	17.65	18.04	18.98	18.48	19.39	19.83
	6H	16.50	17.31	16.96	17.76	18.22	18.37	19.18	18.82	19.62	20.08
	8H	16.73	17.48	17.19	17.93	18.40	18.46	19.22	18.92	19.66	20.13
	12H	16.89	17.57	17.38	18.05	18.52	18.53	19.21	19.02	19.69	20.16
8H	4H	16.21	16.97	16.67	17.41	17.88	18.18	18.93	18.64	19.38	19.85
	6H	17.00	17.62	17.50	18.12	18.59	18.60	19.22	19.09	19.71	20.19
	8H	17.32	17.88	17.83	18.39	18.88	18.75	19.32	19.27	19.83	20.31
	12H	17.58	18.08	18.09	18.57	19.14	18.89	19.39	19.40	19.88	20.45
12H	4H	16.24	16.91	16.72	17.39	17.87	18.18	18.86	18.66	19.34	19.81
	6H	17.06	17.62	17.58	18.13	18.62	18.62	19.18	19.13	19.69	20.18
	8H	17.45	17.94	17.96	18.43	19.00	18.83	19.32	19.34	19.82	20.38