

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: P1060756

Luminaire Tested: S124RDR-H1195D930-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060756
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1195D930-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

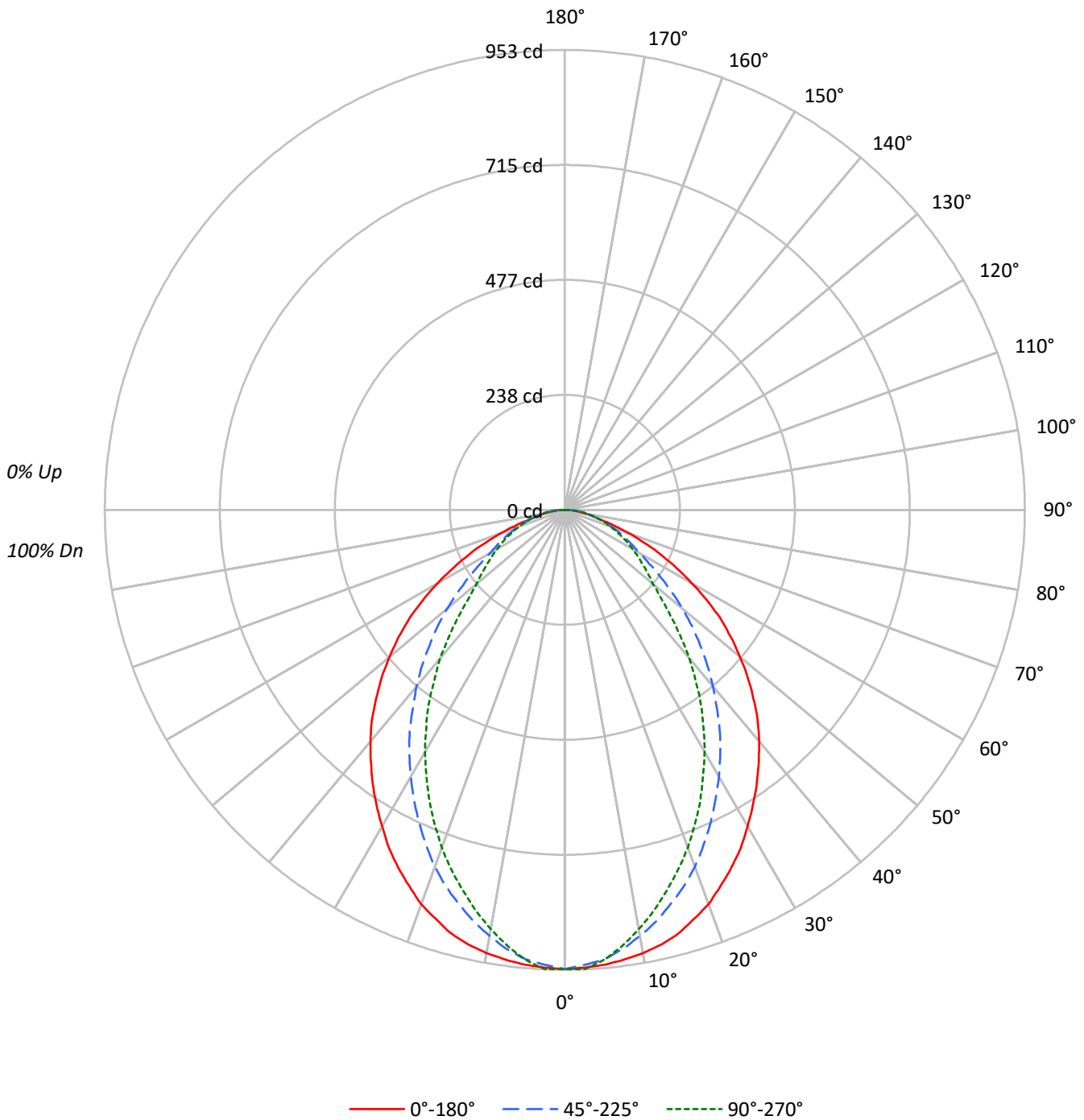
Lumens per Lamp: N/A
Luminaire Lumens: 1834.9 lumens
Efficiency: N/A
Efficacy: 50.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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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CATALOG NUMBER: S124RDR-H1195D930-X4F0-XX-UDD-WVL-B

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	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	107	104	100	97	99	97	94	96	93	91	92	90	88	86																				
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74																				
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64																				
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56																				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																				
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44																				
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40																				
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36																				
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33																				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8194	8194	8194
5°	8177	8081	8091
10°	8155	7842	7715
15°	8105	7546	7277
20°	7972	7214	6824
25°	7766	6790	6311
30°	7527	6349	5759
35°	7288	5889	5172
40°	7039	5368	4512
45°	6727	4821	3773
50°	6351	4255	3191
55°	5909	3609	2955
60°	5239	3062	2792
65°	4466	2826	2643
70°	3492	2618	2505
75°	2382	2419	2419
80°	2053	2271	2331
85°	1769	2213	2431

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6727 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.5	4.8
10°-20°	240.4	13.1
20°-30°	333.8	18.2
30°-40°	357.8	19.5
40°-50°	317.0	17.3
50°-60°	238.9	13.0
60°-70°	154.7	8.4
70°-80°	79.4	4.3
80°-90°	24.4	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°	662.8	36.1
0°-40°	1020.6	55.6
0°-60°	1576.5	85.9
0°-90°	1834.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1834.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	952	952	952	952	952	
5°	946	947	935	936	936	90
15°	909	889	846	825	816	256
25°	817	774	715	676	664	376
35°	693	631	560	510	492	433
45°	552	481	396	334	310	426
55°	394	328	240	202	197	350
65°	219	177	139	131	130	217
75°	72	75	73	73	73	85
85°	18	19	22	25	25	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	951.6	951.6	951.6	951.6	951.6
2.5°	949.4	952.7	943.8	950.5	952.7
5°	946.0	947.2	934.9	936.0	936.0
7.5°	940.4	938.2	918.1	912.5	911.4
10°	932.6	925.9	896.8	885.6	882.3
12.5°	922.5	910.2	873.3	857.7	851.0
15°	909.1	889.0	846.5	825.3	816.3
17.5°	889.0	863.3	818.6	791.7	781.7
20°	870.0	835.3	787.2	753.7	744.7
22.5°	843.2	806.3	751.5	715.7	704.5
25°	817.4	773.8	714.6	676.5	664.2
27.5°	789.5	740.3	676.5	636.3	620.6
30°	757.0	704.5	638.5	596.0	579.2
32.5°	725.7	669.8	599.4	552.4	534.5
35°	693.3	630.7	560.2	509.9	492.0
37.5°	659.8	593.8	516.6	467.4	443.9
40°	626.2	556.9	477.5	421.6	401.4
42.5°	591.6	518.9	437.2	379.1	353.4
45°	552.4	480.8	395.9	334.4	309.8
47.5°	514.4	443.9	357.8	290.7	268.4
50°	474.1	404.8	317.6	252.7	238.2
52.5°	433.9	364.5	278.4	223.6	216.9
55°	393.6	327.6	240.4	202.4	196.8
57.5°	348.9	289.6	206.9	183.4	178.9
60°	304.2	248.2	177.8	165.5	162.1
62.5°	260.6	212.5	157.7	147.6	145.4
65°	219.2	176.7	138.7	130.8	129.7
67.5°	178.9	145.4	120.8	116.3	114.1
70°	138.7	116.3	104.0	101.8	99.5
72.5°	102.9	93.9	88.3	87.2	86.1
75°	71.6	74.9	72.7	72.7	72.7
77.5°	57.0	58.1	59.3	60.4	59.3
80°	41.4	44.7	45.8	48.1	47.0
82.5°	29.1	31.3	34.7	35.8	36.9
85°	17.9	19.0	22.4	24.6	24.6
87.5°	7.8	8.9	11.2	13.4	14.5
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	17.75	19.25	18.11	19.56	19.87	14.31	15.81	14.68	16.12	16.44
	3H	18.95	20.30	19.33	20.62	20.99	16.01	17.35	16.39	17.68	18.04
	4H	19.26	20.52	19.66	20.87	21.25	16.69	17.95	17.09	18.29	18.67
	6H	19.46	20.62	19.87	20.99	21.38	17.23	18.40	17.65	18.76	19.16
	8H	19.52	20.63	19.95	21.02	21.42	17.45	18.56	17.88	18.95	19.35
	12H	19.55	20.61	19.98	20.99	21.42	17.63	18.69	18.06	19.07	19.50
4H	2H	17.89	19.15	18.29	19.50	19.88	14.97	16.23	15.37	16.58	16.96
	3H	19.29	20.34	19.70	20.74	21.14	16.88	17.93	17.29	18.33	18.73
	4H	19.72	20.66	20.15	21.07	21.51	17.68	18.62	18.12	19.04	19.48
	6H	20.04	20.86	20.50	21.30	21.76	18.37	19.19	18.83	19.63	20.09
	8H	20.14	20.90	20.60	21.35	21.82	18.65	19.41	19.11	19.85	20.32
	12H	20.21	20.89	20.69	21.37	21.84	18.88	19.56	19.36	20.04	20.51
8H	4H	19.84	20.61	20.31	21.05	21.52	18.00	18.77	18.46	19.21	19.68
	6H	20.27	20.90	20.76	21.39	21.87	18.83	19.46	19.33	19.95	20.43
	8H	20.42	20.99	20.94	21.50	21.99	19.20	19.76	19.71	20.27	20.76
	12H	20.55	21.05	21.06	21.55	22.11	19.53	20.03	20.04	20.52	21.09
12H	4H	19.85	20.53	20.33	21.01	21.48	18.03	18.71	18.51	19.19	19.66
	6H	20.29	20.86	20.80	21.37	21.86	18.89	19.46	19.40	19.97	20.46
	8H	20.50	21.00	21.01	21.49	22.06	19.32	19.82	19.83	20.32	20.88