

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: P1060995

Luminaire Tested: S124RDR-H795D930-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D930-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

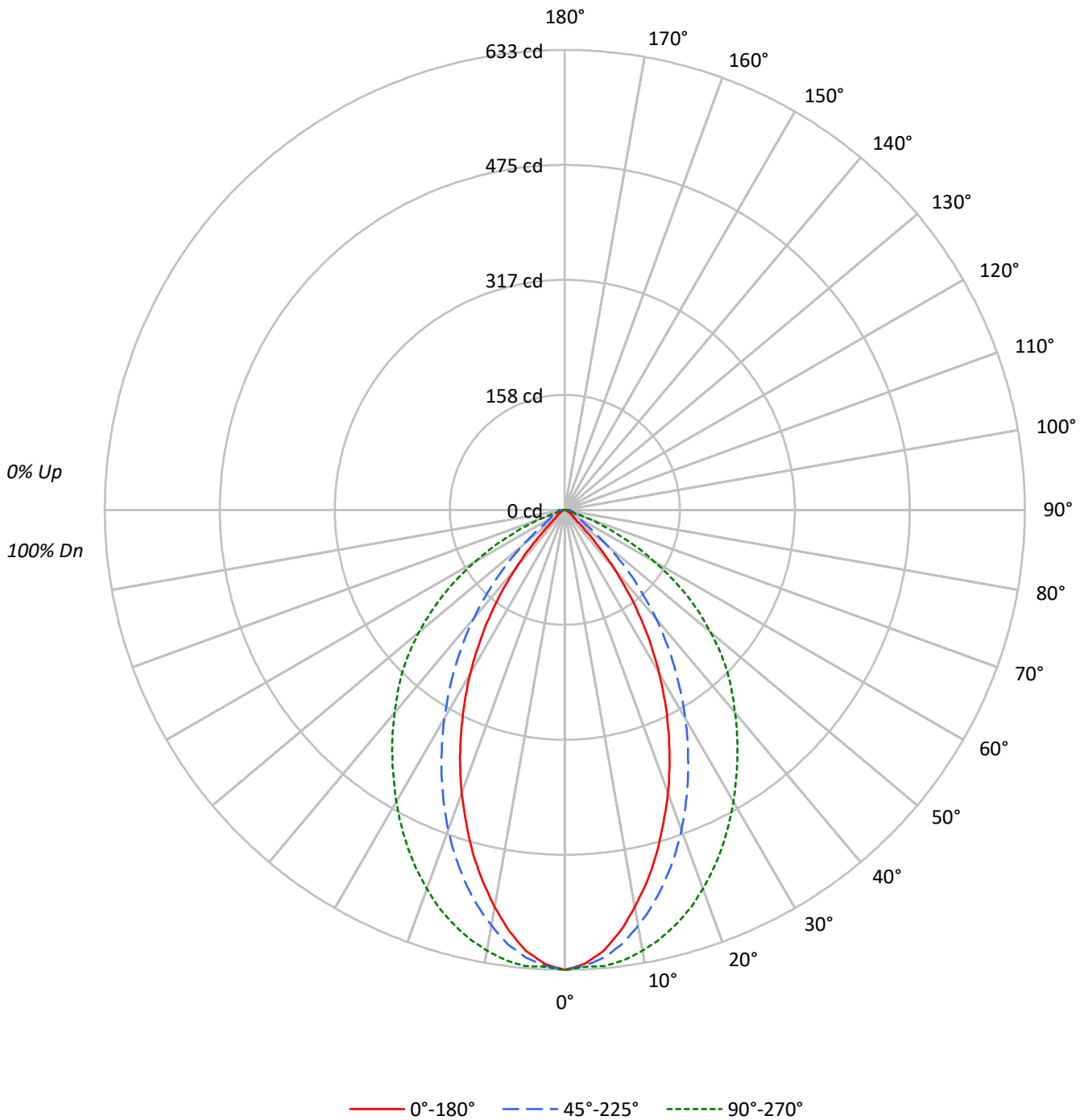
Lumens per Lamp: N/A
Luminaire Lumens: 798.1 lumens
Efficiency: N/A
Efficacy: 34.0 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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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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	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	98	98	96	95	95	93	92	90				
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72				
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65				
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54				
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49				
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5453	5453	5453
5°	5268	5345	5448
10°	4855	5082	5387
15°	4359	4724	5268
20°	3800	4298	5088
25°	3206	3813	4866
30°	2586	3296	4612
35°	1914	2758	4352
40°	1186	2198	4094
45°	470	1603	3856
50°	209	1006	3505
55°	167	524	3069
60°	115	396	2446
65°	75	393	1681
70°	76	355	786
75°	100	346	346
80°	149	407	407
85°	296	810	583

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3856 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.1	7.3
10°-20°	149.9	18.8
20°-30°	189.2	23.7
30°-40°	173.6	21.8
40°-50°	118.2	14.8
50°-60°	64.4	8.1
60°-70°	27.9	3.5
70°-80°	10.2	1.3
80°-90°	6.6	0.8
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°	397.2	49.8
0°-40°	570.8	71.5
0°-60°	753.5	94.4
0°-90°	798.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	798.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	633	633	633	633	633	
5°	609	618	618	625	630	56
15°	489	506	530	568	591	136
25°	337	361	401	465	512	154
35°	182	209	262	346	414	112
45°	39	65	132	233	317	36
55°	11	12	35	129	204	10
65°	4	5	19	40	82	4
75°	3	10	10	10	10	3
85°	3	7	8	8	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	633.2	633.2	633.2	633.2	633.2
2.5°	625.8	633.2	628.0	629.5	629.5
5°	609.4	617.6	618.4	625.1	630.3
7.5°	584.9	596.8	602.8	616.1	625.1
10°	555.2	569.3	581.2	604.2	616.1
12.5°	523.2	539.6	557.4	587.9	605.0
15°	489.0	506.1	529.9	567.8	590.9
17.5°	451.1	472.0	500.9	546.3	574.5
20°	414.7	435.5	469.0	520.3	555.2
22.5°	376.8	398.4	435.5	492.8	534.4
25°	337.4	361.2	401.3	465.3	512.1
27.5°	298.8	324.0	366.4	436.3	488.3
30°	260.1	285.4	331.5	406.5	463.8
32.5°	220.7	246.8	296.5	375.3	438.5
35°	182.1	208.8	262.4	345.6	414.0
37.5°	142.7	170.9	228.2	316.6	389.5
40°	105.5	133.8	195.5	287.6	364.2
42.5°	70.6	98.8	162.0	259.4	340.4
45°	38.6	64.7	131.6	233.4	316.6
47.5°	20.8	35.7	101.8	208.1	289.9
50°	15.6	19.3	75.1	181.3	261.6
52.5°	13.4	14.9	52.0	153.1	233.4
55°	11.1	11.9	34.9	128.6	204.4
57.5°	8.9	9.7	26.0	104.1	173.2
60°	6.7	8.2	23.0	80.3	142.0
62.5°	5.2	6.7	21.6	58.7	112.2
65°	3.7	5.2	19.3	40.1	82.5
67.5°	3.7	5.9	16.4	26.0	55.7
70°	3.0	8.2	14.1	17.1	31.2
72.5°	3.0	8.9	11.9	11.9	11.9
75°	3.0	9.7	10.4	10.4	10.4
77.5°	3.0	8.9	9.7	8.9	8.9
80°	3.0	8.2	8.2	8.2	8.2
82.5°	3.0	7.4	8.2	8.2	6.7
85°	3.0	6.7	8.2	8.2	5.9
87.5°	2.2	6.7	7.4	7.4	4.5
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	0.00	0.00	0.00	0.00	0.00	14.30	15.58	14.67	15.90	16.21
	3H	0.00	0.00	0.00	0.00	0.19	14.68	15.81	15.06	16.14	16.51
	4H	0.00	0.65	0.00	1.00	1.38	14.66	15.71	15.06	16.06	16.44
	6H	0.78	1.75	1.20	2.12	2.51	14.65	15.61	15.06	15.98	16.38
	8H	1.37	2.29	1.80	2.68	3.08	14.65	15.56	15.08	15.95	16.36
	12H	2.05	2.92	2.48	3.30	3.73	14.66	15.53	15.09	15.92	16.35
4H	2H	0.55	1.60	0.95	1.95	2.34	14.11	15.17	14.52	15.52	15.90
	3H	2.13	2.99	2.54	3.39	3.80	14.53	15.39	14.95	15.80	16.20
	4H	3.43	4.20	3.87	4.62	5.06	14.53	15.30	14.97	15.72	16.16
	6H	4.56	5.23	5.03	5.67	6.14	14.57	15.23	15.04	15.68	16.15
	8H	5.07	5.69	5.54	6.14	6.61	14.60	15.22	15.07	15.67	16.14
	12H	5.63	6.17	6.11	6.66	7.13	14.66	15.21	15.15	15.69	16.17
8H	4H	4.52	5.14	4.99	5.58	6.05	14.44	15.06	14.91	15.51	15.98
	6H	6.06	6.57	6.57	7.06	7.55	14.52	15.03	15.02	15.52	16.01
	8H	6.87	7.32	7.39	7.84	8.33	14.60	15.06	15.13	15.58	16.07
	12H	7.70	8.10	8.22	8.60	9.17	14.77	15.18	15.29	15.67	16.24
12H	4H	4.71	5.25	5.19	5.74	6.21	14.41	14.95	14.89	15.43	15.91
	6H	6.42	6.87	6.94	7.39	7.88	14.49	14.95	15.02	15.47	15.96
	8H	7.43	7.83	7.94	8.32	8.90	14.63	15.03	15.15	15.53	16.10