

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: P1060980

Luminaire Tested: S124RDR-H795D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060980
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D850-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

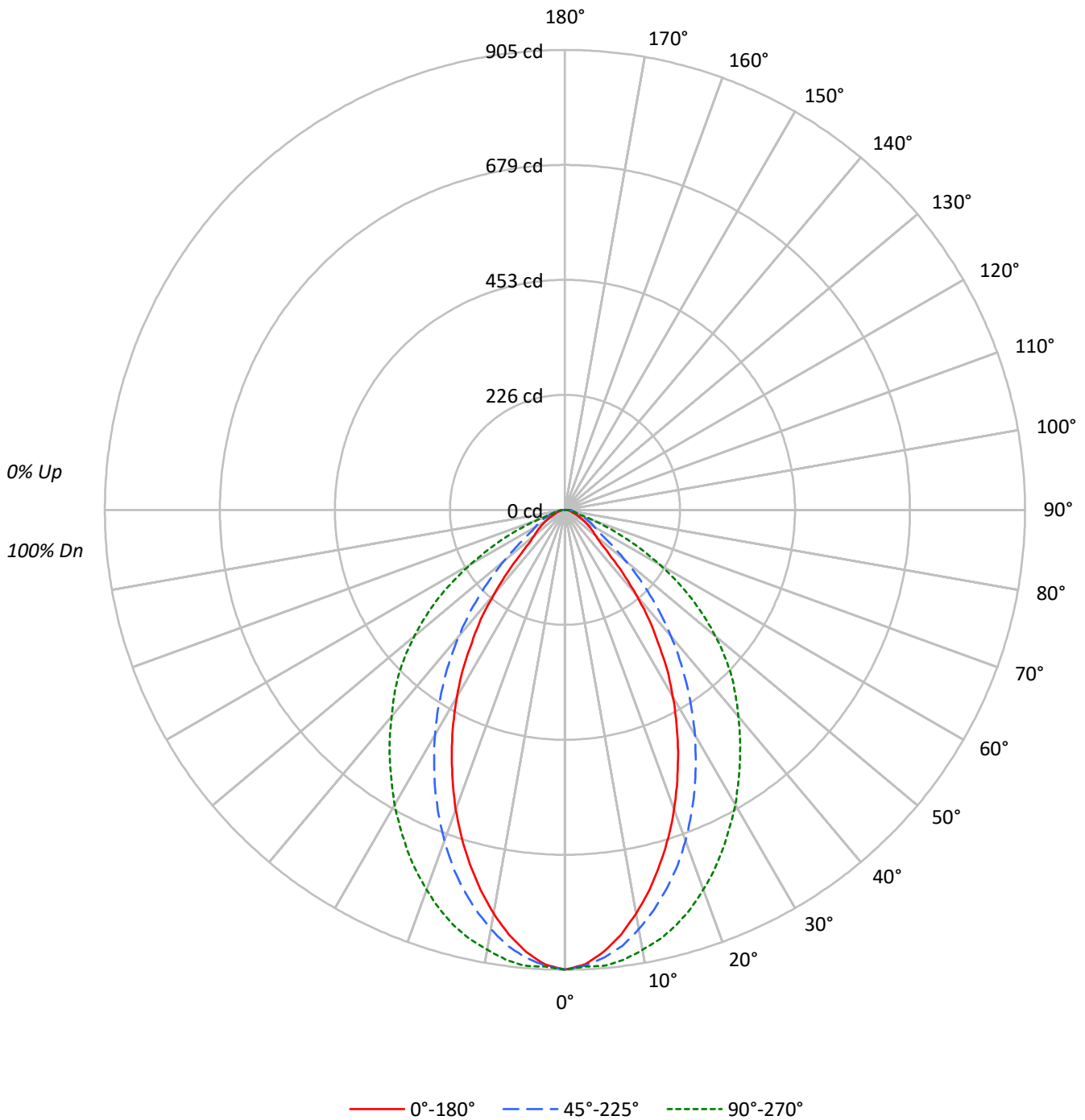
Lumens per Lamp: N/A
Luminaire Lumens: 1280.4 lumens
Efficiency: N/A
Efficacy: 54.5 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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																		
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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89																												
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79																												
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70																												
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63																												
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57																												
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51																												
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47																												
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43																												
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39																												
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7790	7790	7790
5°	7549	7645	7785
10°	7053	7327	7689
15°	6434	6884	7542
20°	5752	6354	7290
25°	5003	5743	6991
30°	4221	5085	6663
35°	3358	4377	6312
40°	2443	3647	5964
45°	1477	2880	5649
50°	1056	2086	5172
55°	895	1411	4567
60°	732	1149	3691
65°	577	1029	2657
70°	483	866	1400
75°	436	808	705
80°	451	803	704
85°	603	1196	800

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5649 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.3	6.5
10°-20°	218.2	17.0
20°-30°	283.0	22.1
30°-40°	272.5	21.3
40°-50°	202.7	15.8
50°-60°	124.7	9.7
60°-70°	61.2	4.8
70°-80°	23.9	1.9
80°-90°	10.9	0.9
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°	584.6	45.7
0°-40°	857.0	66.9
0°-60°	1184.4	92.5
0°-90°	1280.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1280.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	905	905	905	905	905	
5°	873	886	884	892	901	81
15°	722	745	772	819	846	202
25°	527	555	604	680	736	241
35°	319	350	416	520	600	200
45°	121	151	236	365	464	101
55°	60	62	94	214	304	54
65°	28	30	50	81	130	29
75°	13	23	24	22	21	14
85°	6	11	12	12	8	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	904.6	904.6	904.6	904.6	904.6
2.5°	895.5	905.6	897.5	898.5	899.6
5°	873.3	886.4	884.4	892.5	900.6
7.5°	843.0	858.1	865.2	881.4	892.5
10°	806.6	823.8	837.9	864.2	879.3
12.5°	766.1	786.4	806.6	841.9	865.2
15°	721.7	744.9	772.2	818.7	846.0
17.5°	676.2	699.4	734.8	788.4	822.7
20°	627.7	652.9	693.4	753.0	795.5
22.5°	577.1	604.4	648.9	716.6	767.2
25°	526.6	554.9	604.4	680.2	735.8
27.5°	476.1	503.3	556.9	641.8	702.5
30°	424.5	452.8	511.4	600.4	670.1
32.5°	375.0	401.3	463.9	561.0	634.7
35°	319.4	349.7	416.4	520.5	600.4
37.5°	271.9	299.2	370.9	480.1	566.0
40°	217.3	247.6	324.4	440.7	530.6
42.5°	166.8	197.1	280.0	401.3	497.3
45°	121.3	150.6	236.5	364.9	463.9
47.5°	92.0	109.2	194.1	329.5	426.5
50°	78.8	83.9	155.7	291.1	386.1
52.5°	69.7	71.8	121.3	252.7	345.7
55°	59.6	61.7	94.0	214.3	304.2
57.5°	50.5	51.5	75.8	177.9	259.8
60°	42.5	43.5	66.7	142.5	214.3
62.5°	35.4	36.4	59.6	110.2	170.8
65°	28.3	30.3	50.5	80.9	130.4
67.5°	23.2	27.3	42.5	56.6	91.0
70°	19.2	26.3	34.4	39.4	55.6
72.5°	16.2	24.3	29.3	28.3	27.3
75°	13.1	23.2	24.3	22.2	21.2
77.5°	11.1	20.2	20.2	18.2	17.2
80°	9.1	16.2	16.2	16.2	14.2
82.5°	8.1	13.1	14.2	14.2	11.1
85°	6.1	11.1	12.1	12.1	8.1
87.5°	4.0	10.1	11.1	10.1	6.1
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	6.91	8.25	7.28	8.57	8.88	16.09	17.43	16.45	17.74	18.06
	3H	8.02	9.21	8.40	9.54	9.91	16.59	17.78	16.97	18.11	18.48
	4H	8.54	9.65	8.94	10.00	10.38	16.61	17.72	17.01	18.07	18.46
	6H	8.97	10.00	9.39	10.37	10.76	16.62	17.64	17.04	18.01	18.41
	8H	9.17	10.13	9.60	10.52	10.93	16.63	17.59	17.06	17.98	18.39
	12H	9.35	10.27	9.78	10.66	11.09	16.63	17.55	17.06	17.94	18.37
4H	2H	8.06	9.17	8.46	9.52	9.90	15.98	17.09	16.38	17.44	17.82
	3H	9.40	10.31	9.81	10.71	11.12	16.57	17.48	16.98	17.88	18.28
	4H	10.13	10.95	10.57	11.36	11.81	16.62	17.44	17.06	17.86	18.30
	6H	10.74	11.45	11.20	11.89	12.36	16.70	17.40	17.16	17.85	18.32
	8H	10.99	11.64	11.45	12.09	12.56	16.73	17.39	17.20	17.83	18.30
	12H	11.22	11.80	11.71	12.29	12.76	16.77	17.35	17.26	17.84	18.31
8H	4H	10.60	11.26	11.07	11.70	12.17	16.58	17.24	17.05	17.69	18.16
	6H	11.45	11.99	11.95	12.48	12.97	16.71	17.25	17.21	17.74	18.23
	8H	11.86	12.34	12.38	12.86	13.35	16.79	17.28	17.32	17.79	18.28
	12H	12.28	12.71	12.79	13.20	13.77	16.92	17.34	17.43	17.84	18.41
12H	4H	10.65	11.24	11.14	11.72	12.19	16.56	17.14	17.04	17.62	18.09
	6H	11.58	12.07	12.11	12.58	13.07	16.69	17.18	17.21	17.69	18.18
	8H	12.11	12.53	12.62	13.03	13.60	16.83	17.25	17.34	17.75	18.32