

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: P1060971

Luminaire Tested: S124RDR-H795D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060971
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-H795D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

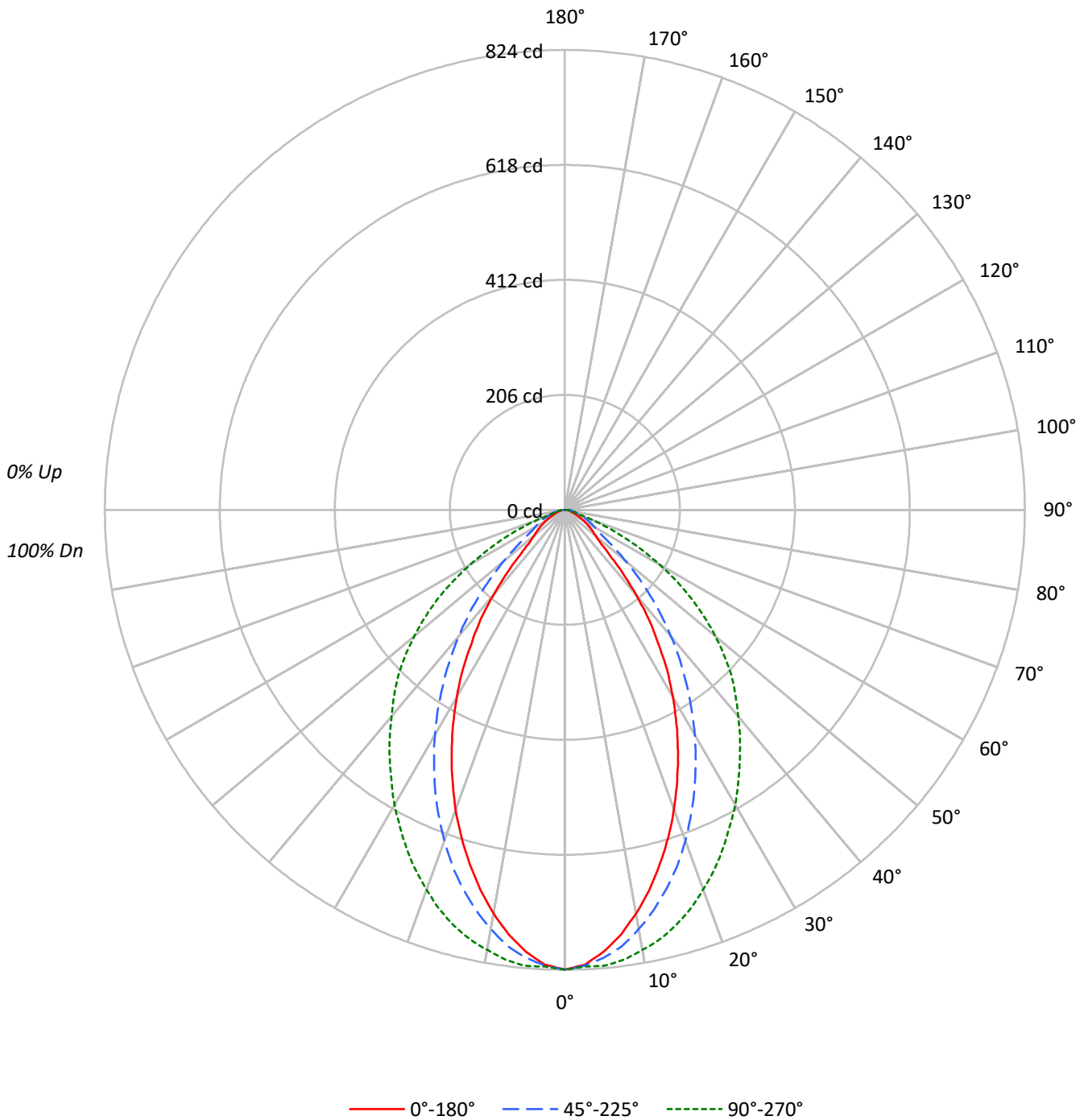
Lumens per Lamp: N/A
Luminaire Lumens: 1165.9 lumens
Efficiency: N/A
Efficacy: 49.6 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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					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				100
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57				57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51				51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43				43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7093	7093	7093
5°	6874	6961	7089
10°	6422	6672	7001
15°	5859	6269	6868
20°	5238	5786	6637
25°	4556	5230	6366
30°	3844	4631	6067
35°	3057	3986	5747
40°	2225	3321	5432
45°	1344	2623	5145
50°	962	1898	4710
55°	815	1285	4159
60°	667	1045	3360
65°	526	937	2419
70°	441	788	1274
75°	399	735	642
80°	412	729	640
85°	543	1087	731

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5145 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.8	6.5
10°-20°	198.7	17.0
20°-30°	257.7	22.1
30°-40°	248.1	21.3
40°-50°	184.6	15.8
50°-60°	113.5	9.7
60°-70°	55.7	4.8
70°-80°	21.7	1.9
80°-90°	9.9	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°	532.3	45.7
0°-40°	780.4	66.9
0°-60°	1078.5	92.5
0°-90°	1165.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1165.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	824	824	824	824	824	
5°	795	807	805	813	820	74
15°	657	678	703	746	770	184
25°	480	505	550	619	670	219
35°	291	318	379	474	547	182
45°	110	137	215	332	422	92
55°	54	56	86	195	277	49
65°	26	28	46	74	119	26
75°	12	21	22	20	19	13
85°	6	10	11	11	7	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	823.7	823.7	823.7	823.7	823.7
2.5°	815.5	824.7	817.3	818.2	819.1
5°	795.2	807.2	805.3	812.7	820.1
7.5°	767.6	781.4	787.9	802.6	812.7
10°	734.5	750.1	763.0	786.9	800.7
12.5°	697.7	716.1	734.5	766.7	787.9
15°	657.2	678.3	703.2	745.5	770.4
17.5°	615.7	636.9	669.1	717.9	749.2
20°	571.6	594.6	631.4	685.7	724.3
22.5°	525.5	550.4	590.9	652.6	698.6
25°	479.5	505.3	550.4	619.4	670.0
27.5°	433.5	458.4	507.1	584.4	639.7
30°	386.6	412.3	465.7	546.7	610.2
32.5°	341.5	365.4	422.5	510.8	578.0
35°	290.8	318.5	379.2	474.0	546.7
37.5°	247.6	272.4	337.8	437.2	515.4
40°	197.9	225.5	295.4	401.3	483.2
42.5°	151.9	179.5	254.9	365.4	452.8
45°	110.4	137.1	215.4	332.3	422.5
47.5°	83.8	99.4	176.7	300.0	388.4
50°	71.8	76.4	141.7	265.1	351.6
52.5°	63.5	65.3	110.4	230.1	314.8
55°	54.3	56.1	85.6	195.1	277.0
57.5°	46.0	46.9	69.0	162.0	236.5
60°	38.7	39.6	60.7	129.8	195.1
62.5°	32.2	33.1	54.3	100.3	155.5
65°	25.8	27.6	46.0	73.6	118.7
67.5°	21.2	24.9	38.7	51.5	82.8
70°	17.5	23.9	31.3	35.9	50.6
72.5°	14.7	22.1	26.7	25.8	24.9
75°	12.0	21.2	22.1	20.2	19.3
77.5°	10.1	18.4	18.4	16.6	15.6
80°	8.3	14.7	14.7	14.7	12.9
82.5°	7.4	12.0	12.9	12.9	10.1
85°	5.5	10.1	11.0	11.0	7.4
87.5°	3.7	9.2	10.1	9.2	5.5
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	6.59	7.93	6.95	8.24	8.56	15.76	17.10	16.12	17.41	17.73
	3H	7.70	8.89	8.08	9.22	9.59	16.27	17.46	16.65	17.79	18.15
	4H	8.22	9.33	8.62	9.68	10.06	16.29	17.40	16.69	17.75	18.13
	6H	8.65	9.67	9.07	10.04	10.44	16.30	17.32	16.71	17.69	18.08
	8H	8.85	9.81	9.27	10.20	10.61	16.30	17.27	16.73	17.66	18.06
	12H	9.03	9.95	9.46	10.33	10.76	16.30	17.23	16.74	17.61	18.04
4H	2H	7.73	8.84	8.14	9.19	9.58	15.65	16.76	16.05	17.11	17.50
	3H	9.08	9.98	9.49	10.39	10.79	16.24	17.15	16.65	17.55	17.96
	4H	9.81	10.63	10.25	11.04	11.49	16.30	17.11	16.73	17.53	17.97
	6H	10.42	11.12	10.88	11.57	12.03	16.37	17.08	16.84	17.52	17.99
	8H	10.66	11.32	11.13	11.77	12.24	16.40	17.06	16.87	17.51	17.98
	12H	10.90	11.48	11.39	11.96	12.44	16.45	17.03	16.93	17.51	17.98
8H	4H	10.28	10.94	10.75	11.38	11.85	16.26	16.91	16.73	17.36	17.83
	6H	11.13	11.66	11.63	12.16	12.64	16.38	16.92	16.89	17.42	17.90
	8H	11.54	12.02	12.06	12.53	13.03	16.47	16.95	16.99	17.47	17.96
	12H	11.96	12.39	12.47	12.88	13.45	16.59	17.02	17.10	17.51	18.08
12H	4H	10.33	10.91	10.82	11.40	11.87	16.23	16.81	16.72	17.29	17.77
	6H	11.26	11.74	11.78	12.26	12.75	16.37	16.85	16.89	17.36	17.86
	8H	11.78	12.21	12.30	12.71	13.28	16.50	16.93	17.01	17.42	17.99