

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: P1060890

Luminaire Tested: S124RDR-H575D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060890
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-H575D840-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

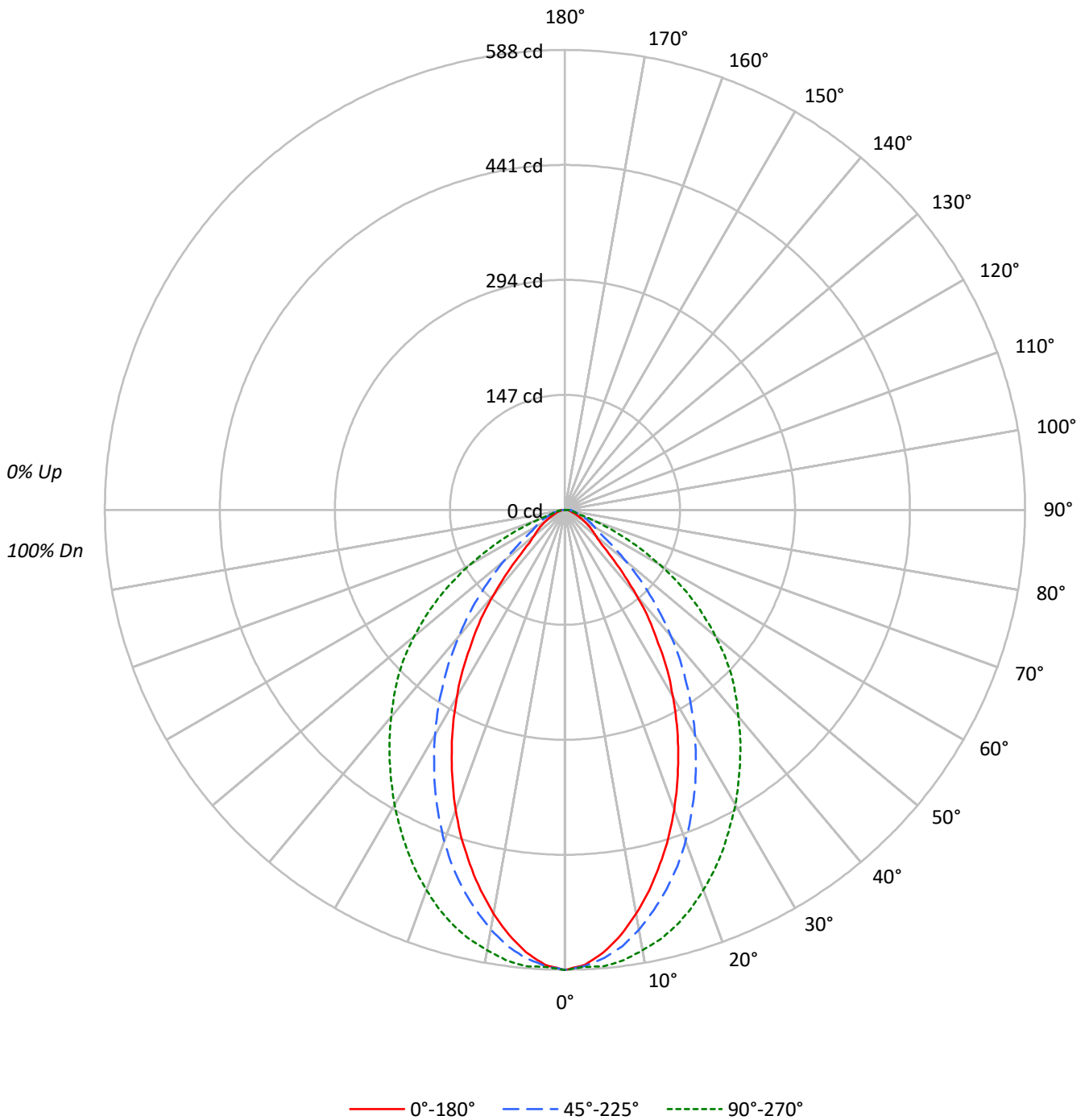
Lumens per Lamp: N/A
Luminaire Lumens: 832.5 lumens
Efficiency: N/A
Efficacy: 47.8 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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					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°	5065	5065	5065
5°	4908	4970	5062
10°	4585	4764	5000
15°	4183	4476	4904
20°	3740	4131	4740
25°	3253	3734	4545
30°	2744	3306	4332
35°	2183	2847	4104
40°	1588	2372	3878
45°	961	1873	3673
50°	687	1356	3363
55°	583	917	2970
60°	475	747	2399
65°	375	670	1728
70°	315	561	909
75°	283	526	459
80°	293	521	456
85°	385	781	524

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3673 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.1	6.5
10°-20°	141.9	17.0
20°-30°	184.0	22.1
30°-40°	177.2	21.3
40°-50°	131.8	15.8
50°-60°	81.1	9.7
60°-70°	39.8	4.8
70°-80°	15.5	1.9
80°-90°	7.1	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°	380.1	45.7
0°-40°	557.2	66.9
0°-60°	770.1	92.5
0°-90°	832.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	832.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	588	588	588	588	588	
5°	568	576	575	580	586	53
15°	469	484	502	532	550	131
25°	342	361	393	442	478	157
35°	208	227	271	338	390	130
45°	79	98	154	237	302	66
55°	39	40	61	139	198	35
65°	18	20	33	53	85	19
75°	8	15	16	14	14	9
85°	4	7	8	8	5	4
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	588.2	588.2	588.2	588.2	588.2
2.5°	582.3	588.8	583.6	584.2	584.9
5°	567.8	576.4	575.0	580.3	585.6
7.5°	548.1	558.0	562.6	573.1	580.3
10°	524.4	535.6	544.8	561.9	571.8
12.5°	498.1	511.3	524.4	547.4	562.6
15°	469.2	484.3	502.1	532.3	550.1
17.5°	439.7	454.8	477.8	512.6	535.0
20°	408.1	424.5	450.8	489.6	517.2
22.5°	375.3	393.0	421.9	465.9	498.8
25°	342.4	360.8	393.0	442.3	478.4
27.5°	309.5	327.3	362.1	417.3	456.7
30°	276.0	294.4	332.5	390.4	435.7
32.5°	243.8	260.9	301.6	364.7	412.7
35°	207.7	227.4	270.8	338.5	390.4
37.5°	176.8	194.5	241.2	312.2	368.0
40°	141.3	161.0	211.0	286.5	345.0
42.5°	108.4	128.2	182.0	260.9	323.3
45°	78.9	97.9	153.8	237.2	301.6
47.5°	59.8	71.0	126.2	214.2	277.3
50°	51.3	54.5	101.2	189.3	251.0
52.5°	45.3	46.7	78.9	164.3	224.8
55°	38.8	40.1	61.1	139.3	197.8
57.5°	32.9	33.5	49.3	115.7	168.9
60°	27.6	28.3	43.4	92.7	139.3
62.5°	23.0	23.7	38.8	71.6	111.1
65°	18.4	19.7	32.9	52.6	84.8
67.5°	15.1	17.7	27.6	36.8	59.1
70°	12.5	17.1	22.3	25.6	36.1
72.5°	10.5	15.8	19.1	18.4	17.7
75°	8.5	15.1	15.8	14.5	13.8
77.5°	7.2	13.1	13.1	11.8	11.2
80°	5.9	10.5	10.5	10.5	9.2
82.5°	5.3	8.5	9.2	9.2	7.2
85°	3.9	7.2	7.9	7.9	5.3
87.5°	2.6	6.6	7.2	6.6	3.9
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	5.42	6.76	5.79	7.08	7.39	14.59	15.93	14.96	16.25	16.56
	3H	6.53	7.72	6.91	8.05	8.42	15.10	16.29	15.48	16.62	16.98
	4H	7.05	8.16	7.45	8.51	8.89	15.12	16.23	15.52	16.58	16.96
	6H	7.48	8.50	7.89	8.87	9.26	15.13	16.15	15.54	16.52	16.91
	8H	7.67	8.64	8.10	9.03	9.43	15.13	16.10	15.56	16.49	16.89
	12H	7.85	8.77	8.28	9.16	9.59	15.13	16.06	15.57	16.44	16.87
4H	2H	6.57	7.68	6.97	8.03	8.41	14.48	15.59	14.89	15.94	16.33
	3H	7.91	8.82	8.32	9.22	9.62	15.07	15.98	15.48	16.38	16.79
	4H	8.64	9.45	9.07	9.87	10.31	15.13	15.94	15.56	16.36	16.81
	6H	9.25	9.95	9.71	10.39	10.86	15.21	15.91	15.67	16.35	16.82
	8H	9.49	10.15	9.96	10.59	11.06	15.24	15.89	15.70	16.34	16.81
	12H	9.72	10.30	10.21	10.79	11.26	15.28	15.86	15.76	16.34	16.81
8H	4H	9.11	9.76	9.58	10.21	10.68	15.09	15.74	15.56	16.19	16.66
	6H	9.95	10.49	10.45	10.99	11.47	15.21	15.75	15.72	16.25	16.73
	8H	10.36	10.84	10.88	11.36	11.85	15.30	15.78	15.82	16.30	16.79
	12H	10.78	11.21	11.29	11.70	12.27	15.42	15.85	15.93	16.34	16.91
12H	4H	9.16	9.74	9.65	10.22	10.70	15.06	15.64	15.55	16.12	16.60
	6H	10.08	10.57	10.61	11.08	11.57	15.20	15.68	15.72	16.19	16.69
	8H	10.61	11.03	11.12	11.53	12.10	15.33	15.76	15.84	16.25	16.82