

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: P1060735

Luminaire Tested: S124RDR-H1195D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060735
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1195D850-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK 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

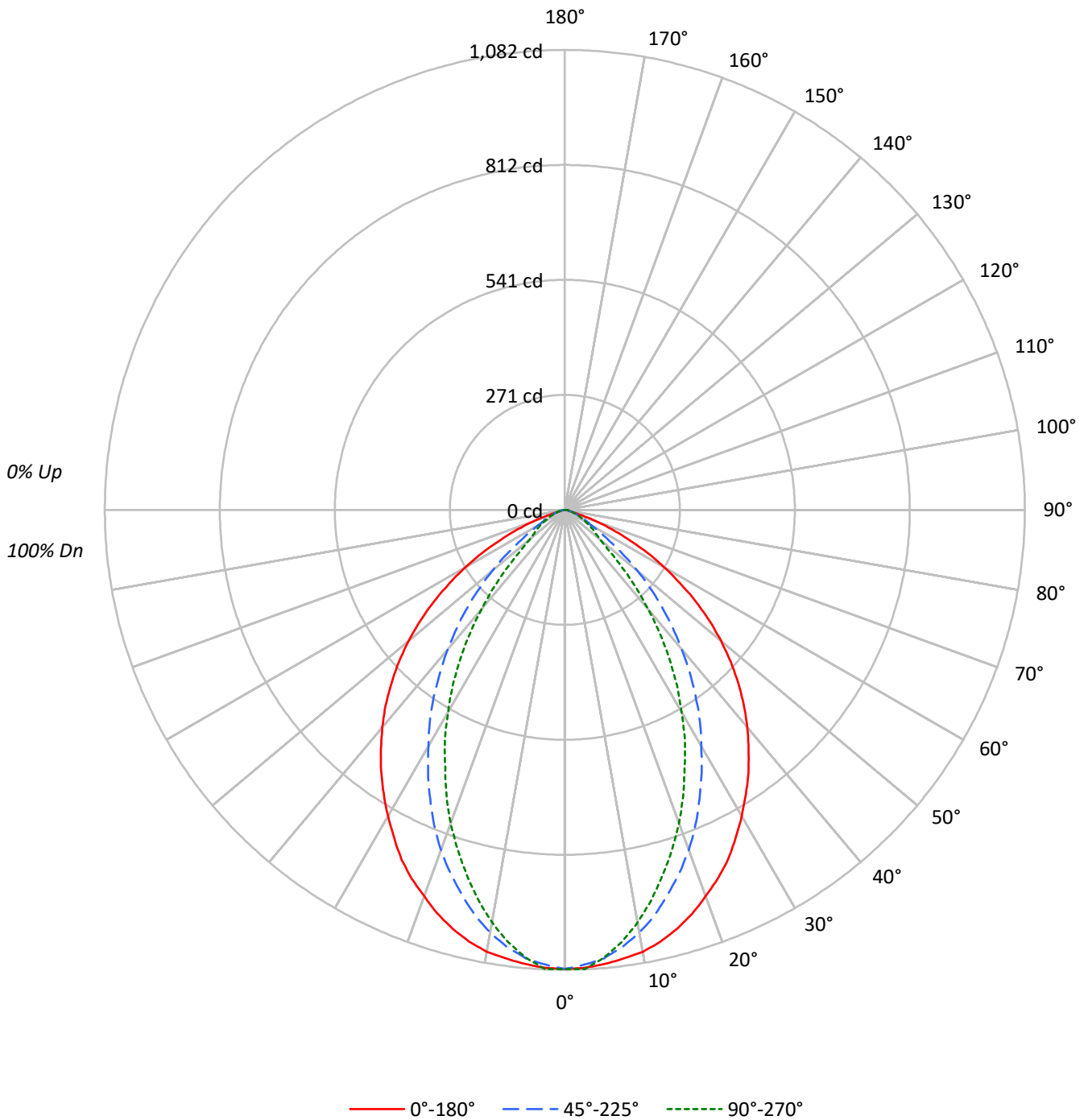
Lumens per Lamp: N/A
Luminaire Lumens: 1592.2 lumens
Efficiency: N/A
Efficacy: 43.6 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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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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	97	98	96	94	95	93	92	90				
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71				
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63				
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57				
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51				
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47				
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43				
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39				
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9300	9300	9300
5°	9269	9151	9138
10°	9230	8831	8618
15°	9099	8353	7932
20°	8865	7806	7193
25°	8628	7125	6330
30°	8273	6383	5460
35°	7915	5644	4509
40°	7506	4804	3420
45°	7021	3927	2297
50°	6418	2975	1427
55°	5640	1964	1210
60°	4662	1206	995
65°	3378	929	805
70°	1838	690	612
75°	406	506	556
80°	302	377	451
85°	296	296	454

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7021 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.0	6.3
10°-20°	265.8	16.7
20°-30°	352.0	22.1
30°-40°	349.4	21.9
40°-50°	268.9	16.9
50°-60°	160.2	10.1
60°-70°	72.8	4.6
70°-80°	18.8	1.2
80°-90°	4.2	0.3
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°	717.8	45.1
0°-40°	1067.2	67.0
0°-60°	1496.4	94.0
0°-90°	1592.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1592.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1080	1080	1080	1080	1080	
5°	1072	1074	1059	1059	1057	102
15°	1021	995	937	905	890	287
25°	908	843	750	688	666	417
35°	753	659	537	455	429	470
45°	576	464	322	225	189	444
55°	376	268	131	82	81	335
65°	166	99	46	40	40	167
75°	12	15	15	17	17	26
85°	3	3	3	5	5	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1080.0	1080.0	1080.0	1080.0	1080.0
2.5°	1078.4	1080.0	1070.8	1078.4	1081.5
5°	1072.3	1073.9	1058.7	1058.7	1057.1
7.5°	1064.7	1061.7	1037.4	1028.2	1025.2
10°	1055.6	1045.0	1010.0	991.7	985.6
12.5°	1040.4	1023.7	976.5	950.7	940.0
15°	1020.6	994.8	937.0	905.0	889.8
17.5°	996.3	964.4	895.9	854.8	838.1
20°	967.4	924.8	851.8	800.1	784.9
22.5°	940.0	886.8	803.1	743.8	727.1
25°	908.1	842.7	749.9	687.5	666.2
27.5°	870.0	800.1	696.6	632.8	611.5
30°	832.0	754.4	641.9	575.0	549.1
32.5°	792.5	707.3	591.7	515.6	491.3
35°	752.9	658.6	536.9	454.8	428.9
37.5°	710.3	609.9	482.2	397.0	368.1
40°	667.7	562.8	427.4	340.7	304.2
42.5°	623.6	514.1	374.2	282.9	246.4
45°	576.5	463.9	322.5	225.1	188.6
47.5°	529.3	416.8	270.7	168.8	135.4
50°	479.1	366.6	222.1	123.2	106.5
52.5°	428.9	317.9	173.4	95.8	91.3
55°	375.7	267.7	130.8	82.1	80.6
57.5°	320.9	222.1	94.3	71.5	68.4
60°	270.7	179.5	70.0	60.8	57.8
62.5°	219.0	135.4	57.8	50.2	47.2
65°	165.8	98.9	45.6	39.5	39.5
67.5°	120.2	66.9	36.5	31.9	30.4
70°	73.0	41.1	27.4	25.9	24.3
72.5°	36.5	24.3	21.3	19.8	19.8
75°	12.2	15.2	15.2	16.7	16.7
77.5°	9.1	10.6	10.6	12.2	12.2
80°	6.1	7.6	7.6	9.1	9.1
82.5°	4.6	4.6	6.1	6.1	7.6
85°	3.0	3.0	3.0	4.6	4.6
87.5°	1.5	1.5	1.5	3.0	3.0
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	16.87	18.20	17.23	18.51	18.83	8.42	9.75	8.78	10.06	10.38
	3H	17.38	18.56	17.76	18.89	19.25	9.23	10.41	9.61	10.74	11.11
	4H	17.34	18.44	17.74	18.79	19.17	9.51	10.61	9.92	10.96	11.35
	6H	17.28	18.29	17.69	18.66	19.05	9.69	10.69	10.10	11.06	11.46
	8H	17.24	18.19	17.67	18.58	18.99	9.75	10.70	10.18	11.10	11.50
	12H	17.20	18.11	17.63	18.50	18.93	9.80	10.71	10.23	11.09	11.52
4H	2H	16.71	17.81	17.11	18.16	18.54	8.86	9.95	9.26	10.31	10.69
	3H	17.26	18.16	17.68	18.56	18.96	9.82	10.71	10.23	11.12	11.52
	4H	17.23	18.03	17.67	18.45	18.89	10.18	10.98	10.62	11.40	11.84
	6H	17.18	17.86	17.64	18.31	18.78	10.44	11.12	10.90	11.57	12.03
	8H	17.13	17.77	17.60	18.22	18.69	10.52	11.16	10.99	11.61	12.08
	12H	17.09	17.66	17.58	18.14	18.62	10.60	11.16	11.09	11.65	12.12
8H	4H	17.12	17.76	17.59	18.21	18.68	10.27	10.91	10.74	11.36	11.83
	6H	17.06	17.58	17.56	18.08	18.56	10.58	11.10	11.09	11.60	12.08
	8H	17.01	17.48	17.53	18.00	18.49	10.71	11.18	11.24	11.70	12.19
	12H	16.98	17.39	17.50	17.89	18.46	10.85	11.27	11.37	11.76	12.33
12H	4H	17.08	17.64	17.57	18.13	18.60	10.25	10.81	10.73	11.29	11.77
	6H	17.00	17.47	17.53	17.99	18.48	10.56	11.03	11.08	11.55	12.04
	8H	16.98	17.39	17.49	17.89	18.46	10.73	11.15	11.25	11.64	12.21