

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: P1061863

Luminaire Tested: S125RDR-H1090D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061863
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-46)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H1090D840-X4F0-XX-UDD-WVL-B
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

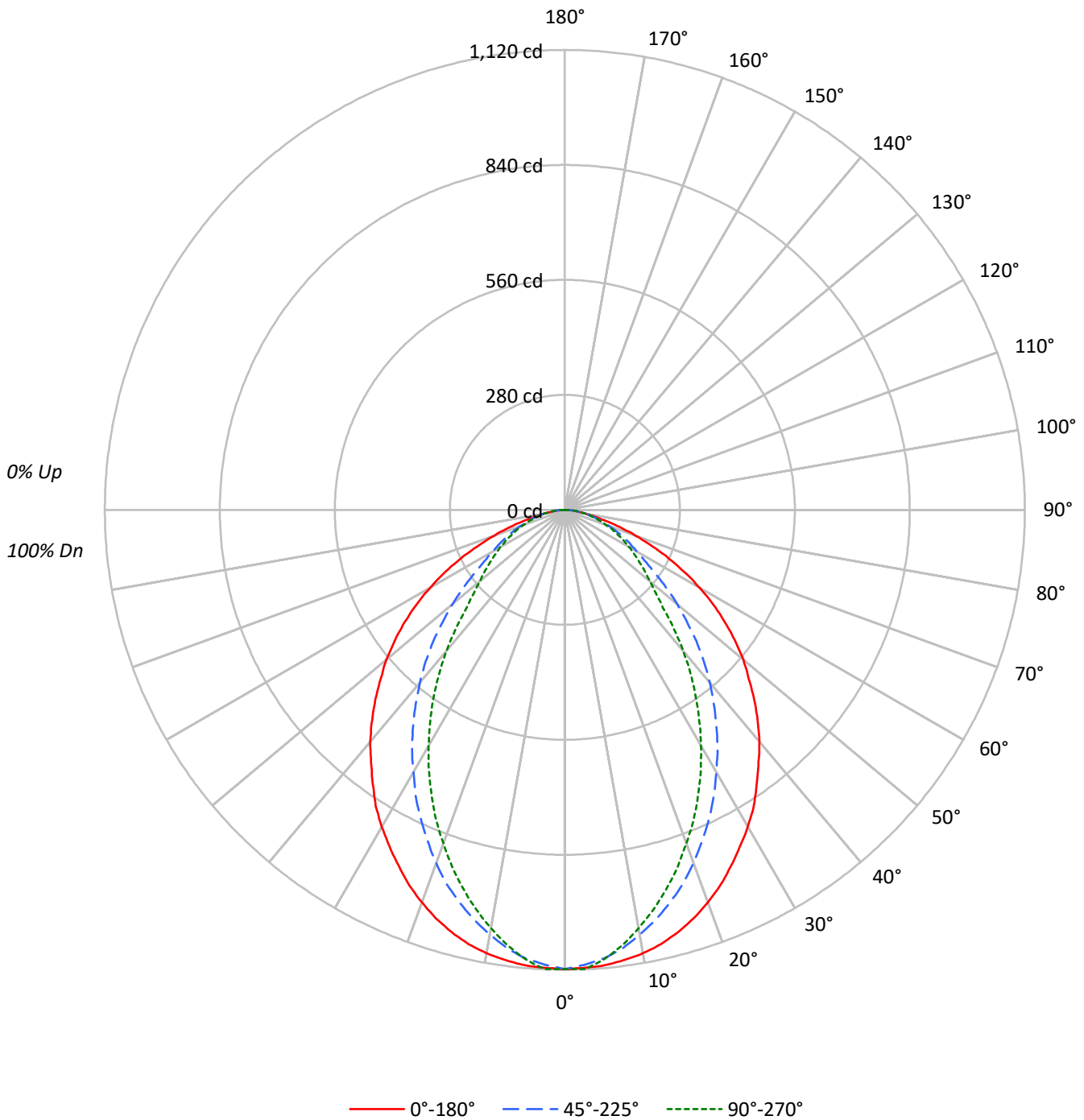
Lumens per Lamp: N/A
Luminaire Lumens: 2118.7 lumens
Efficiency: N/A
Efficacy: 67.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87			87	
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75			75	
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65			65	
4	86	75	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57			57	
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50			50	
6	74	62	54	48	73	61	53	48	59	53	47	58	52	47	56	51	47	45			45	
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40			40	
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	36			36	
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	33			33	
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30			30	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7700	7700	7700
5°	7697	7579	7596
10°	7667	7344	7233
15°	7591	7055	6812
20°	7456	6709	6335
25°	7270	6310	5831
30°	7086	5860	5271
35°	6849	5410	4675
40°	6625	4934	4028
45°	6350	4411	3299
50°	6075	3824	2888
55°	5700	3192	2667
60°	5201	2793	2491
65°	4550	2553	2315
70°	3692	2297	2152
75°	2650	2099	2003
80°	1828	1879	1879
85°	1343	1627	1730

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6350 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.0	4.9
10°-20°	281.3	13.3
20°-30°	388.8	18.3
30°-40°	414.1	19.5
40°-50°	363.7	17.2
50°-60°	275.8	13.0
60°-70°	179.1	8.5
70°-80°	88.7	4.2
80°-90°	23.2	1.1
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°	774.0	36.5
0°-40°	1188.1	56.1
0°-60°	1827.6	86.3
0°-90°	2118.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2118.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1118	1118	1118	1118	1118	
5°	1114	1111	1097	1100	1099	106
15°	1065	1041	990	967	956	300
25°	957	905	831	788	768	441
35°	815	740	644	585	556	510
45°	652	561	453	372	339	503
55°	475	381	266	230	222	424
65°	279	208	157	144	142	276
75°	100	87	79	76	75	111
85°	17	19	21	21	22	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1118.4	1118.4	1118.4	1118.4	1118.4
2.5°	1116.0	1118.4	1108.7	1117.2	1119.6
5°	1113.6	1111.1	1096.6	1100.2	1099.0
7.5°	1106.3	1101.4	1077.1	1074.7	1069.8
10°	1096.6	1084.4	1050.4	1041.9	1034.6
12.5°	1083.2	1063.8	1022.5	1005.5	997.0
15°	1065.0	1040.7	989.7	966.6	955.7
17.5°	1043.1	1009.1	955.7	924.1	912.0
20°	1017.6	977.5	915.6	879.2	864.6
22.5°	989.7	942.3	873.1	834.3	818.5
25°	956.9	904.7	830.6	788.1	767.5
27.5°	924.1	865.8	785.7	738.3	716.5
30°	891.3	824.5	737.1	686.1	663.0
32.5°	856.1	782.0	692.2	636.3	609.6
35°	814.8	739.5	643.6	585.3	556.2
37.5°	774.8	694.6	596.2	530.7	502.7
40°	737.1	652.1	548.9	477.2	448.1
42.5°	694.6	607.2	501.5	426.2	393.4
45°	652.1	561.0	453.0	371.6	338.8
47.5°	607.2	517.3	401.9	321.8	299.9
50°	567.1	472.4	357.0	284.2	269.6
52.5°	521.0	428.7	310.9	255.0	245.3
55°	474.8	381.3	265.9	229.5	222.2
57.5°	427.5	338.8	230.7	207.7	200.4
60°	377.7	295.1	202.8	184.6	180.9
62.5°	327.9	250.2	178.5	165.2	160.3
65°	279.3	207.7	156.7	144.5	142.1
67.5°	229.5	168.8	134.8	126.3	125.1
70°	183.4	137.2	114.1	109.3	106.9
72.5°	140.9	109.3	95.9	92.3	91.1
75°	99.6	87.4	78.9	76.5	75.3
77.5°	66.8	66.8	63.1	60.7	61.9
80°	46.1	48.6	47.4	47.4	47.4
82.5°	30.4	32.8	34.0	34.0	34.0
85°	17.0	19.4	20.6	20.6	21.9
87.5°	6.1	7.3	8.5	9.7	9.7
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	17.65	19.14	18.01	19.45	19.76	13.89	15.38	14.25	15.69	16.01
	3H	18.96	20.29	19.33	20.62	20.98	15.47	16.81	15.85	17.14	17.50
	4H	19.33	20.58	19.73	20.93	21.31	16.07	17.33	16.47	17.68	18.05
	6H	19.50	20.66	19.91	21.03	21.42	16.55	17.70	16.96	18.07	18.46
	8H	19.54	20.64	19.97	21.03	21.43	16.71	17.81	17.13	18.20	18.60
	12H	19.55	20.60	19.98	20.99	21.42	16.82	17.87	17.25	18.25	18.68
4H	2H	17.76	19.01	18.16	19.36	19.74	14.55	15.80	14.95	16.15	16.53
	3H	19.24	20.28	19.66	20.68	21.08	16.33	17.37	16.74	17.77	18.17
	4H	19.72	20.65	20.15	21.07	21.51	17.05	17.98	17.48	18.40	18.84
	6H	20.01	20.82	20.46	21.26	21.72	17.64	18.45	18.10	18.89	19.35
	8H	20.07	20.83	20.54	21.28	21.74	17.84	18.60	18.31	19.04	19.51
	12H	20.12	20.79	20.60	21.27	21.74	18.00	18.67	18.48	19.15	19.62
8H	4H	19.80	20.56	20.27	21.00	21.47	17.36	18.12	17.82	18.56	19.03
	6H	20.17	20.79	20.66	21.28	21.76	18.07	18.69	18.56	19.18	19.66
	8H	20.28	20.84	20.80	21.35	21.84	18.35	18.91	18.86	19.42	19.91
	12H	20.37	20.86	20.88	21.36	21.92	18.58	19.07	19.09	19.56	20.13
12H	4H	19.80	20.47	20.28	20.95	21.42	17.39	18.06	17.87	18.54	19.01
	6H	20.17	20.73	20.68	21.24	21.73	18.12	18.68	18.63	19.19	19.68
	8H	20.33	20.82	20.84	21.32	21.88	18.45	18.95	18.96	19.44	20.01