

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: P1061845

Luminaire Tested: S125RDR-H1090D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061845
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-H1090D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

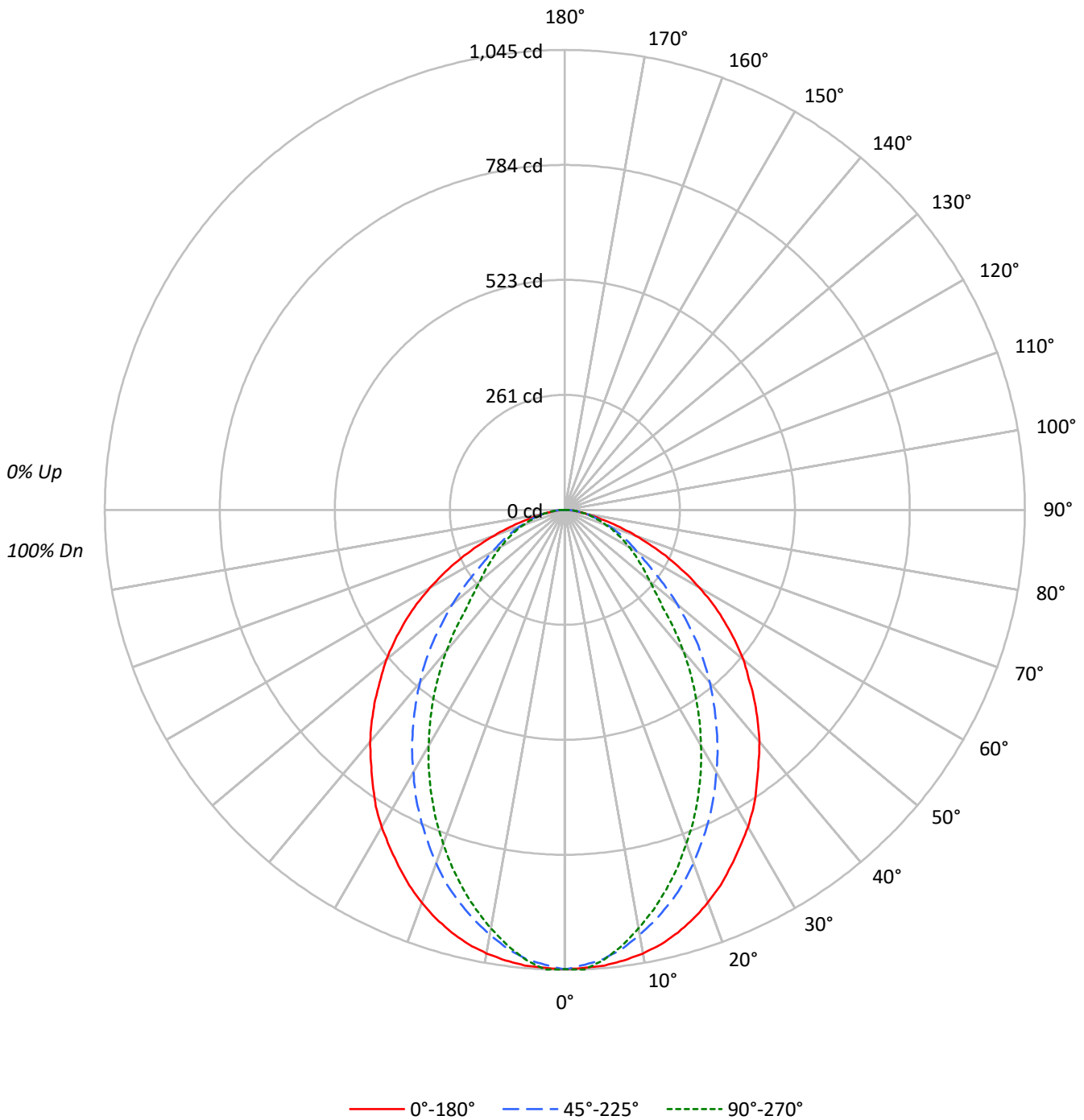
Lumens per Lamp: N/A
Luminaire Lumens: 1977.4 lumens
Efficiency: N/A
Efficacy: 63.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7188	7188	7188
5°	7183	7074	7089
10°	7156	6854	6751
15°	7085	6584	6358
20°	6959	6262	5913
25°	6785	5889	5442
30°	6614	5470	4920
35°	6392	5049	4363
40°	6184	4605	3759
45°	5926	4117	3079
50°	5670	3569	2695
55°	5320	2979	2490
60°	4854	2607	2326
65°	4247	2382	2160
70°	3444	2144	2007
75°	2471	1961	1870
80°	1709	1753	1753
85°	1256	1525	1612

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5926 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.0	4.9
10°-20°	262.5	13.3
20°-30°	362.8	18.3
30°-40°	386.5	19.5
40°-50°	339.5	17.2
50°-60°	257.4	13.0
60°-70°	167.1	8.5
70°-80°	82.8	4.2
80°-90°	21.7	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°	722.4	36.5
0°-40°	1108.9	56.1
0°-60°	1705.8	86.3
0°-90°	1977.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1977.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1044	1044	1044	1044	1044	
5°	1039	1037	1024	1027	1026	99
15°	994	971	924	902	892	280
25°	893	844	775	736	716	412
35°	760	690	601	546	519	476
45°	609	524	423	347	316	469
55°	443	356	248	214	207	395
65°	261	194	146	135	133	258
75°	93	82	74	71	70	104
85°	16	18	19	19	20	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1043.9	1043.9	1043.9	1043.9	1043.9
2.5°	1041.6	1043.9	1034.8	1042.7	1045.0
5°	1039.3	1037.1	1023.5	1026.9	1025.7
7.5°	1032.5	1028.0	1005.3	1003.1	998.5
10°	1023.5	1012.1	980.4	972.5	965.6
12.5°	1011.0	992.9	954.3	938.4	930.5
15°	994.0	971.3	923.7	902.2	892.0
17.5°	973.6	941.8	892.0	862.5	851.2
20°	949.8	912.4	854.6	820.6	807.0
22.5°	923.7	879.5	814.9	778.6	763.9
25°	893.1	844.4	775.2	735.6	716.3
27.5°	862.5	808.1	733.3	689.1	668.7
30°	831.9	769.6	688.0	640.4	618.8
32.5°	799.0	729.9	646.0	593.9	569.0
35°	760.5	690.2	600.7	546.3	519.1
37.5°	723.1	648.3	556.5	495.3	469.2
40°	688.0	608.6	512.3	445.4	418.2
42.5°	648.3	566.7	468.1	397.8	367.2
45°	608.6	523.6	422.8	346.8	316.2
47.5°	566.7	482.8	375.2	300.3	279.9
50°	529.3	440.9	333.2	265.2	251.6
52.5°	486.2	400.1	290.1	238.0	228.9
55°	443.2	355.9	248.2	214.2	207.4
57.5°	399.0	316.2	215.3	193.8	187.0
60°	352.5	275.4	189.3	172.3	168.9
62.5°	306.0	233.5	166.6	154.1	149.6
65°	260.7	193.8	146.2	134.9	132.6
67.5°	214.2	157.5	125.8	117.9	116.7
70°	171.1	128.1	106.5	102.0	99.7
72.5°	131.5	102.0	89.5	86.1	85.0
75°	92.9	81.6	73.7	71.4	70.3
77.5°	62.3	62.3	58.9	56.7	57.8
80°	43.1	45.3	44.2	44.2	44.2
82.5°	28.3	30.6	31.7	31.7	31.7
85°	15.9	18.1	19.3	19.3	20.4
87.5°	5.7	6.8	7.9	9.1	9.1
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	17.41	18.90	17.77	19.21	19.53	13.65	15.14	14.01	15.45	15.77
	3H	18.72	20.05	19.09	20.38	20.74	15.23	16.57	15.61	16.89	17.26
	4H	19.09	20.34	19.49	20.69	21.07	15.83	17.09	16.23	17.43	17.81
	6H	19.26	20.42	19.67	20.78	21.18	16.30	17.46	16.72	17.83	18.22
	8H	19.30	20.40	19.73	20.79	21.19	16.46	17.56	16.89	17.95	18.36
	12H	19.31	20.36	19.74	20.75	21.18	16.58	17.63	17.01	18.01	18.44
4H	2H	17.52	18.77	17.92	19.12	19.50	14.31	15.56	14.71	15.91	16.29
	3H	19.00	20.04	19.42	20.44	20.84	16.09	17.13	16.50	17.53	17.93
	4H	19.48	20.41	19.91	20.83	21.27	16.81	17.74	17.24	18.16	18.60
	6H	19.77	20.58	20.22	21.02	21.48	17.40	18.21	17.86	18.65	19.11
	8H	19.83	20.59	20.30	21.04	21.50	17.60	18.36	18.07	18.80	19.27
	12H	19.87	20.55	20.36	21.03	21.50	17.76	18.43	18.24	18.91	19.38
8H	4H	19.56	20.32	20.03	20.76	21.23	17.12	17.88	17.58	18.32	18.79
	6H	19.93	20.55	20.42	21.04	21.52	17.83	18.45	18.32	18.94	19.42
	8H	20.04	20.60	20.56	21.11	21.60	18.10	18.66	18.62	19.18	19.66
	12H	20.13	20.62	20.64	21.12	21.68	18.33	18.83	18.84	19.32	19.89
12H	4H	19.56	20.23	20.04	20.71	21.18	17.14	17.82	17.63	18.30	18.77
	6H	19.93	20.49	20.44	21.00	21.49	17.88	18.44	18.39	18.95	19.44
	8H	20.09	20.58	20.60	21.08	21.64	18.21	18.71	18.72	19.20	19.77