

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: P1061944

Luminaire Tested: S125RDR-H1270D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061944  
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-H1270D840-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: -

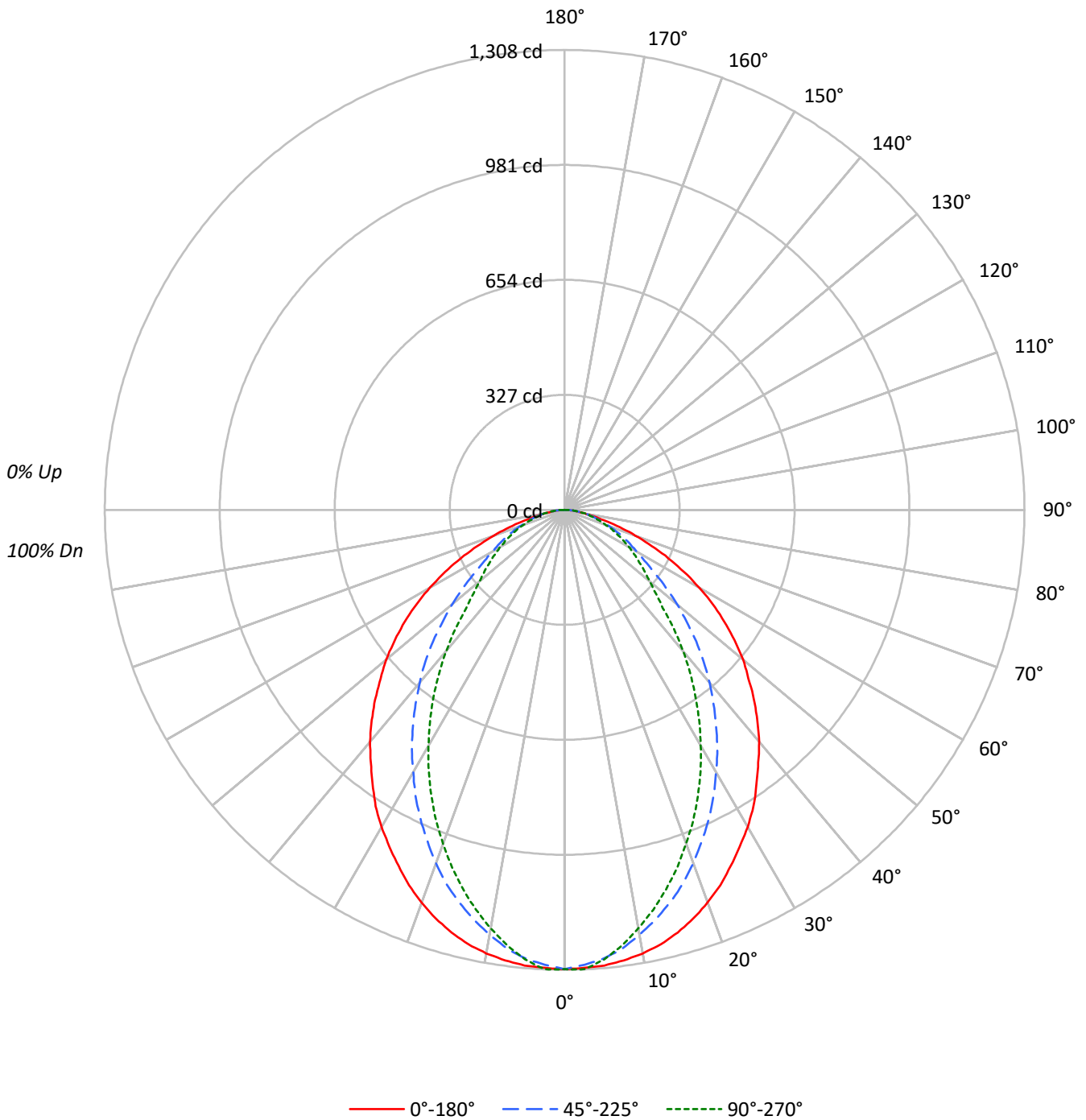
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2475.0 lumens  
Efficiency: N/A  
Efficacy: 67.8 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): 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									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													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	76	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°	8996	8996	8996
5°	8991	8854	8873
10°	8956	8579	8450
15°	8868	8241	7958
20°	8710	7837	7400
25°	8492	7371	6811
30°	8278	6846	6158
35°	8001	6319	5461
40°	7740	5763	4705
45°	7418	5152	3854
50°	7096	4468	3373
55°	6659	3730	3116
60°	6076	3262	2911
65°	5316	2981	2704
70°	4312	2683	2512
75°	3094	2453	2341
80°	2137	2193	2193
85°	1572	1904	2014

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7418 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.5	4.9
10°-20°	328.6	13.3
20°-30°	454.1	18.3
30°-40°	483.7	19.5
40°-50°	424.9	17.2
50°-60°	322.2	13.0
60°-70°	209.2	8.5
70°-80°	103.7	4.2
80°-90°	27.1	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°	904.2	36.5
0°-40°	1387.9	56.1
0°-60°	2135.0	86.3
0°-90°	2475.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2475.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1306	1306	1306	1306	1306	
5°	1301	1298	1281	1285	1284	124
15°	1244	1216	1156	1129	1116	350
25°	1118	1057	970	921	896	515
35°	952	864	752	684	650	596
45°	762	655	529	434	396	587
55°	555	445	311	268	260	495
65°	326	243	183	169	166	322
75°	116	102	92	89	88	130
85°	20	23	24	24	26	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1306.5	1306.5	1306.5	1306.5	1306.5
2.5°	1303.7	1306.5	1295.2	1305.1	1307.9
5°	1300.8	1298.0	1281.0	1285.2	1283.8
7.5°	1292.3	1286.7	1258.3	1255.4	1249.8
10°	1281.0	1266.8	1227.1	1217.1	1208.6
12.5°	1265.4	1242.7	1194.4	1174.6	1164.7
15°	1244.1	1215.7	1156.1	1129.2	1116.4
17.5°	1218.6	1178.8	1116.4	1079.5	1065.4
20°	1188.8	1142.0	1069.6	1027.1	1010.0
22.5°	1156.1	1100.8	1020.0	974.6	956.1
25°	1117.8	1056.8	970.3	920.7	896.5
27.5°	1079.5	1011.4	917.8	862.5	837.0
30°	1041.2	963.2	861.1	801.5	774.5
32.5°	1000.1	913.6	808.6	743.3	712.1
35°	951.9	863.9	751.8	683.8	649.7
37.5°	905.1	811.4	696.5	619.9	587.3
40°	861.1	761.8	641.2	557.5	523.5
42.5°	811.4	709.3	585.9	497.9	459.6
45°	761.8	655.4	529.1	434.1	395.8
47.5°	709.3	604.3	469.6	375.9	350.4
50°	662.5	551.8	417.1	331.9	314.9
52.5°	608.6	500.8	363.2	297.9	286.6
55°	554.7	445.4	310.7	268.1	259.6
57.5°	499.3	395.8	269.5	242.6	234.1
60°	441.2	344.7	236.9	215.6	211.4
62.5°	383.0	292.2	208.5	192.9	187.3
65°	326.3	242.6	183.0	168.8	166.0
67.5°	268.1	197.2	157.5	147.5	146.1
70°	214.2	160.3	133.3	127.7	124.8
72.5°	164.6	127.7	112.1	107.8	106.4
75°	116.3	102.1	92.2	89.4	88.0
77.5°	78.0	78.0	73.8	70.9	72.3
80°	53.9	56.7	55.3	55.3	55.3
82.5°	35.5	38.3	39.7	39.7	39.7
85°	19.9	22.7	24.1	24.1	25.5
87.5°	7.1	8.5	9.9	11.3	11.3
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	18.19	19.68	18.55	19.99	20.31	14.43	15.92	14.79	16.23	16.55
	3H	19.50	20.83	19.87	21.16	21.52	16.01	17.35	16.39	17.67	18.04
	4H	19.87	21.12	20.27	21.47	21.85	16.61	17.87	17.01	18.21	18.59
	6H	20.04	21.20	20.45	21.57	21.96	17.08	18.24	17.50	18.61	19.00
	8H	20.08	21.18	20.51	21.57	21.97	17.24	18.34	17.67	18.73	19.14
	12H	20.09	21.14	20.52	21.53	21.96	17.36	18.41	17.79	18.79	19.22
4H	2H	18.30	19.55	18.70	19.90	20.28	15.09	16.34	15.49	16.69	17.07
	3H	19.78	20.82	20.20	21.22	21.62	16.87	17.91	17.28	18.31	18.71
	4H	20.26	21.19	20.69	21.61	22.05	17.59	18.52	18.02	18.94	19.38
	6H	20.55	21.36	21.00	21.80	22.26	18.18	18.99	18.64	19.43	19.89
	8H	20.61	21.37	21.08	21.82	22.28	18.38	19.14	18.85	19.58	20.05
	12H	20.66	21.33	21.14	21.81	22.28	18.54	19.21	19.02	19.69	20.16
8H	4H	20.34	21.10	20.81	21.54	22.01	17.90	18.66	18.36	19.10	19.57
	6H	20.71	21.33	21.20	21.82	22.30	18.61	19.23	19.10	19.72	20.20
	8H	20.82	21.38	21.34	21.89	22.38	18.88	19.44	19.40	19.96	20.44
	12H	20.91	21.40	21.42	21.90	22.46	19.11	19.61	19.62	20.10	20.67
12H	4H	20.34	21.01	20.82	21.49	21.96	17.93	18.60	18.41	19.08	19.55
	6H	20.71	21.27	21.22	21.78	22.27	18.66	19.22	19.17	19.73	20.22
	8H	20.87	21.36	21.38	21.86	22.42	18.99	19.49	19.50	19.98	20.55