

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1061449

Luminaire Tested: S125RDRP-S1090D835-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061449  
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: S125RDRP-S1090D835-X4F0-XX-UDD-WVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

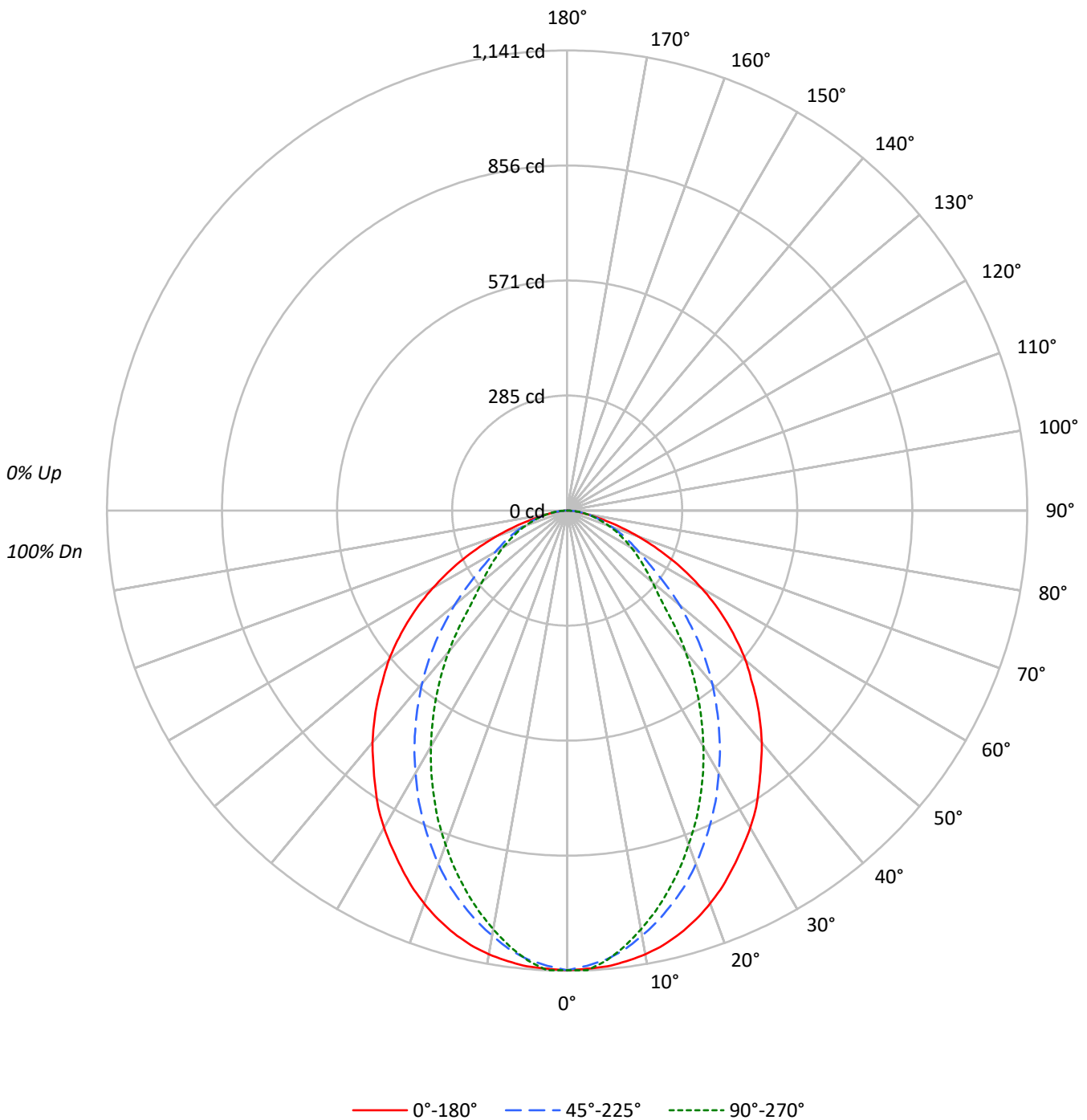
Lumens per Lamp: N/A  
Luminaire Lumens: 2158.8 lumens  
Efficiency: N/A  
Efficacy: 61.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	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°	7846	7846	7846
5°	7843	7722	7740
10°	7812	7483	7370
15°	7735	7188	6941
20°	7597	6836	6455
25°	7407	6430	5941
30°	7221	5972	5371
35°	6979	5512	4763
40°	6751	5027	4104
45°	6470	4494	3361
50°	6189	3897	2942
55°	5808	3253	2718
60°	5299	2845	2539
65°	4637	2600	2359
70°	3760	2341	2192
75°	2700	2139	2040
80°	1864	1915	1915
85°	1367	1659	1762

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6470 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.9	4.9
10°-20°	286.6	13.3
20°-30°	396.1	18.3
30°-40°	421.9	19.5
40°-50°	370.6	17.2
50°-60°	281.0	13.0
60°-70°	182.5	8.5
70°-80°	90.4	4.2
80°-90°	23.7	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°	788.7	36.5
0°-40°	1210.6	56.1
0°-60°	1862.3	86.3
0°-90°	2158.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2158.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1140	1140	1140	1140	1140	
5°	1135	1132	1117	1121	1120	108
15°	1085	1060	1008	985	974	306
25°	975	922	846	803	782	449
35°	830	754	656	596	567	520
45°	664	572	462	379	345	512
55°	484	388	271	234	226	432
65°	285	212	160	147	145	281
75°	102	89	80	78	77	113
85°	17	20	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°	1139.6	1139.6	1139.6	1139.6	1139.6
2.5°	1137.1	1139.6	1129.7	1138.4	1140.8
5°	1134.7	1132.2	1117.3	1121.0	1119.8
7.5°	1127.2	1122.3	1097.5	1095.1	1090.1
10°	1117.3	1105.0	1070.3	1061.7	1054.2
12.5°	1103.7	1083.9	1041.9	1024.5	1015.9
15°	1085.2	1060.4	1008.4	984.9	973.8
17.5°	1062.9	1028.2	973.8	941.6	929.3
20°	1036.9	996.1	933.0	895.8	881.0
22.5°	1008.4	960.2	889.7	850.1	834.0
25°	975.0	921.8	846.4	803.0	782.0
27.5°	941.6	882.2	800.6	752.3	730.0
30°	908.2	840.2	751.1	699.1	675.6
32.5°	872.3	796.9	705.3	648.4	621.2
35°	830.3	753.6	655.8	596.4	566.7
37.5°	789.4	707.8	607.5	540.7	512.3
40°	751.1	664.5	559.3	486.3	456.6
42.5°	707.8	618.7	511.0	434.3	400.9
45°	664.5	571.7	461.5	378.6	345.2
47.5°	618.7	527.1	409.6	327.9	305.6
50°	577.8	481.3	363.8	289.5	274.7
52.5°	530.8	436.8	316.8	259.8	249.9
55°	483.8	388.5	271.0	233.9	226.4
57.5°	435.6	345.2	235.1	211.6	204.2
60°	384.8	300.7	206.6	188.1	184.4
62.5°	334.1	254.9	181.9	168.3	163.3
65°	284.6	211.6	159.6	147.2	144.8
67.5°	233.9	172.0	137.3	128.7	127.4
70°	186.8	139.8	116.3	111.4	108.9
72.5°	143.5	111.4	97.8	94.0	92.8
75°	101.5	89.1	80.4	78.0	76.7
77.5°	68.1	68.1	64.3	61.9	63.1
80°	47.0	49.5	48.3	48.3	48.3
82.5°	30.9	33.4	34.6	34.6	34.6
85°	17.3	19.8	21.0	21.0	22.3
87.5°	6.2	7.4	8.7	9.9	9.9
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	17.71	19.20	18.07	19.52	19.83	13.95	15.44	14.32	15.76	16.07
	3H	19.02	20.36	19.40	20.69	21.05	15.54	16.87	15.91	17.20	17.56
	4H	19.39	20.64	19.79	20.99	21.37	16.14	17.39	16.54	17.74	18.12
	6H	19.57	20.72	19.98	21.09	21.48	16.61	17.77	17.02	18.13	18.53
	8H	19.60	20.70	20.03	21.09	21.50	16.77	17.87	17.20	18.26	18.66
	12H	19.62	20.67	20.05	21.05	21.48	16.88	17.93	17.31	18.32	18.75
4H	2H	17.82	19.07	18.22	19.42	19.80	14.61	15.87	15.01	16.22	16.59
	3H	19.31	20.35	19.72	20.75	21.15	16.40	17.43	16.81	17.83	18.23
	4H	19.79	20.72	20.22	21.13	21.57	17.11	18.05	17.55	18.46	18.90
	6H	20.07	20.88	20.53	21.32	21.79	17.70	18.51	18.16	18.96	19.42
	8H	20.14	20.90	20.60	21.34	21.81	17.91	18.67	18.37	19.11	19.58
	12H	20.18	20.86	20.66	21.33	21.81	18.06	18.74	18.55	19.22	19.69
8H	4H	19.87	20.63	20.33	21.07	21.54	17.42	18.18	17.89	18.63	19.09
	6H	20.23	20.86	20.73	21.35	21.83	18.13	18.76	18.63	19.25	19.73
	8H	20.35	20.91	20.86	21.42	21.91	18.41	18.97	18.93	19.48	19.97
	12H	20.43	20.93	20.95	21.42	21.99	18.64	19.13	19.15	19.63	20.19
12H	4H	19.86	20.54	20.35	21.02	21.49	17.45	18.13	17.93	18.61	19.08
	6H	20.23	20.80	20.75	21.31	21.80	18.18	18.74	18.70	19.25	19.74
	8H	20.39	20.89	20.90	21.38	21.95	18.52	19.01	19.03	19.51	20.07