

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: P1061468

Luminaire Tested: S125RDRP-S1090D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061468  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-85)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S1090D850-X4F0-XX-UDD-WVL-S  
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

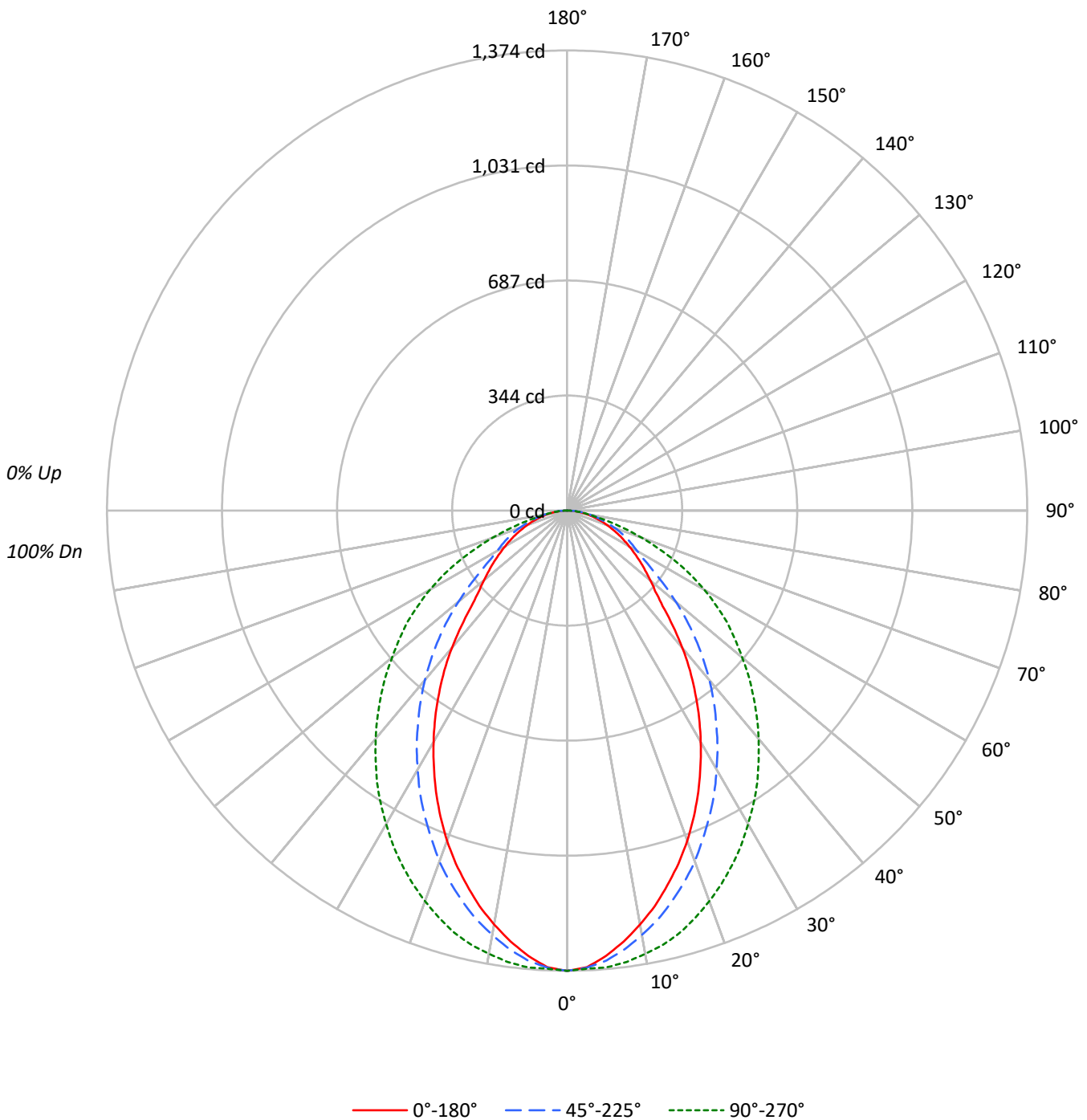
Lumens per Lamp: N/A  
Luminaire Lumens: 2576.2 lumens  
Efficiency: N/A  
Efficacy: 73.6 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct

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	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	107	104	100	97	99	97	94	96	93	91	92	90	88	86
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76	74
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	54	48	72	61	53	48	59	52	47	58	52	47	56	51	46	44
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40
8	65	52	44	39	63	52	44	39	50	43	38	49	43	38	48	42	38	36
9	61	48	41	35	59	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°	9462	9462	9462
5°	9223	9318	9461
10°	8773	8994	9397
15°	8249	8611	9296
20°	7685	8168	9094
25°	7040	7645	8866
30°	6341	7095	8590
35°	5608	6520	8320
40°	4812	5936	7996
45°	3930	5280	7660
50°	3486	4529	7308
55°	3197	3757	7004
60°	2950	3327	6522
65°	2752	3198	5815
70°	2571	3040	4753
75°	2373	2849	3506
80°	2232	2668	2557
85°	2062	2599	2172

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7660 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.2	4.9
10°-20°	342.6	13.3
20°-30°	470.8	18.3
30°-40°	499.0	19.4
40°-50°	435.5	16.9
50°-60°	330.9	12.8
60°-70°	221.7	8.6
70°-80°	114.3	4.4
80°-90°	34.3	1.3
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°	940.5	36.5
0°-40°	1439.5	55.9
0°-60°	2206.0	85.6
0°-90°	2576.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2576.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1374	1374	1374	1374	1374	
5°	1334	1348	1348	1358	1369	125
15°	1157	1179	1208	1262	1304	325
25°	927	956	1006	1090	1167	425
35°	667	706	776	886	990	416
45°	404	443	542	671	787	319
55°	266	275	313	460	584	239
65°	169	173	196	262	357	168
75°	89	95	107	114	132	96
85°	26	33	33	30	28	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1374.3	1374.3	1374.3	1374.3	1374.3
2.5°	1364.6	1374.3	1366.0	1366.0	1368.8
5°	1334.4	1348.2	1348.2	1357.8	1368.8
7.5°	1297.4	1312.5	1320.7	1342.7	1359.2
10°	1254.8	1271.3	1286.4	1319.3	1344.1
12.5°	1209.5	1227.4	1250.7	1293.3	1327.6
15°	1157.3	1179.3	1208.1	1261.7	1304.2
17.5°	1105.2	1127.1	1162.8	1226.0	1274.0
20°	1048.9	1072.2	1114.8	1183.4	1241.1
22.5°	988.5	1014.6	1059.9	1138.1	1205.4
25°	926.7	955.5	1006.3	1090.1	1167.0
27.5°	862.2	896.5	951.4	1040.6	1125.8
30°	797.6	832.0	892.4	989.8	1080.5
32.5°	733.1	770.2	836.1	939.1	1036.5
35°	667.2	705.7	775.7	885.5	989.8
37.5°	602.7	641.1	719.4	833.3	939.1
40°	535.4	575.2	660.4	779.8	889.6
42.5°	466.8	509.3	601.3	724.9	838.8
45°	403.6	443.4	542.3	671.3	786.7
47.5°	356.9	383.0	483.3	616.4	735.9
50°	325.4	339.1	422.8	562.9	682.3
52.5°	293.8	304.8	366.6	508.0	631.5
55°	266.3	274.6	313.0	459.9	583.5
57.5°	238.9	247.1	271.8	411.9	527.2
60°	214.2	221.0	241.6	361.1	473.6
62.5°	190.8	196.3	218.3	313.0	416.0
65°	168.9	173.0	196.3	262.2	356.9
67.5°	146.9	151.0	174.4	214.2	293.8
70°	127.7	129.1	151.0	174.4	236.1
72.5°	108.5	109.8	127.7	141.4	181.2
75°	89.2	94.7	107.1	113.9	131.8
77.5°	72.8	79.6	86.5	89.2	89.2
80°	56.3	64.5	67.3	67.3	64.5
82.5°	41.2	48.1	49.4	46.7	43.9
85°	26.1	32.9	32.9	30.2	27.5
87.5°	12.4	17.8	17.8	16.5	12.4
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	14.41	15.91	14.78	16.22	16.54	18.34	19.84	18.71	20.15	20.47
	3H	15.99	17.33	16.36	17.66	18.02	19.76	21.11	20.14	21.44	21.80
	4H	16.60	17.86	17.00	18.21	18.59	20.18	21.44	20.58	21.79	22.17
	6H	17.09	18.26	17.51	18.62	19.02	20.40	21.56	20.81	21.93	22.32
	8H	17.27	18.38	17.70	18.77	19.17	20.45	21.56	20.88	21.95	22.35
	12H	17.39	18.45	17.82	18.83	19.26	20.49	21.55	20.92	21.93	22.36
4H	2H	15.15	16.41	15.55	16.76	17.14	18.47	19.73	18.87	20.08	20.46
	3H	16.93	17.98	17.34	18.38	18.78	20.08	21.12	20.49	21.52	21.92
	4H	17.67	18.61	18.10	19.02	19.46	20.61	21.55	21.04	21.96	22.40
	6H	18.30	19.12	18.76	19.56	20.02	20.95	21.77	21.41	22.21	22.67
	8H	18.53	19.30	18.99	19.74	20.21	21.05	21.81	21.51	22.26	22.72
	12H	18.70	19.39	19.19	19.87	20.34	21.12	21.80	21.60	22.28	22.75
8H	4H	18.07	18.83	18.53	19.28	19.74	20.71	21.48	21.18	21.92	22.39
	6H	18.85	19.48	19.35	19.98	20.45	21.15	21.78	21.65	22.27	22.75
	8H	19.18	19.74	19.69	20.25	20.74	21.31	21.88	21.82	22.39	22.87
	12H	19.45	19.95	19.96	20.45	21.01	21.44	21.95	21.95	22.44	23.00
12H	4H	18.11	18.79	18.59	19.27	19.74	20.71	21.39	21.19	21.87	22.34
	6H	18.94	19.50	19.45	20.01	20.50	21.17	21.73	21.68	22.24	22.73
	8H	19.33	19.83	19.84	20.33	20.89	21.38	21.88	21.89	22.37	22.93