

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: P1059800

Luminaire Tested: S123RDR-H775D940-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059800
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D940-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

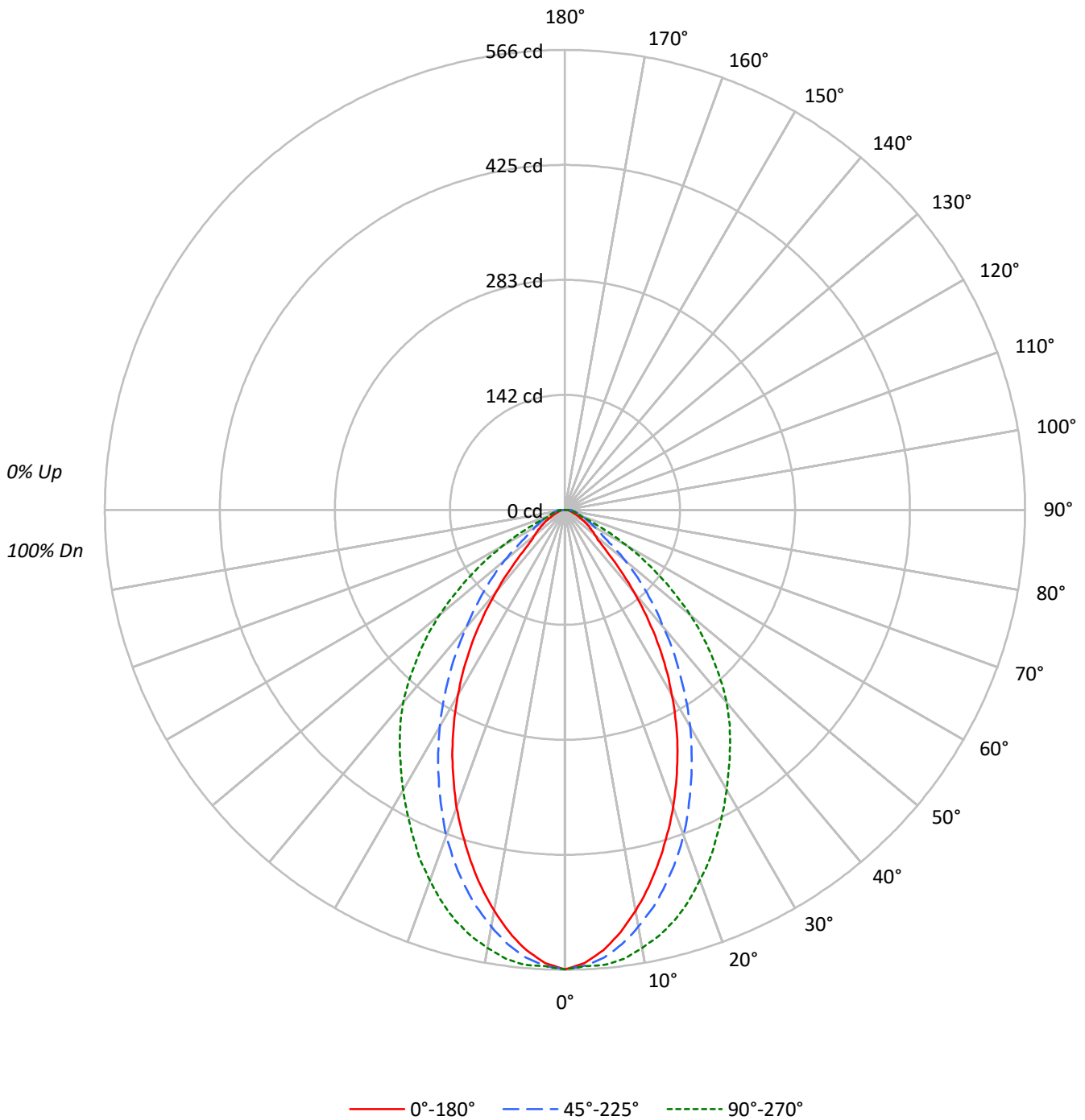
Lumens per Lamp: N/A
Luminaire Lumens: 757.4 lumens
Efficiency: N/A
Efficacy: 32.2 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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	
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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89			89	
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79			79	
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71			71	
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64			64	
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58			58	
6	79	68	61	56	78	67	60	55	66	60	55	64	59	54	63	58	54	52			52	
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48			48	
8	70	58	51	46	69	58	51	46	57	50	46	56	50	46	54	49	45	44			44	
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40			40	
10	62	51	44	39	61	50	44	39	50	43	39	49	43	39	48	43	39	37			37	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6640	6640	6640
5°	6413	6520	6627
10°	5975	6211	6527
15°	5440	5811	6353
20°	4870	5333	6066
25°	4247	4760	5733
30°	3571	4175	5395
35°	2840	3539	5077
40°	2025	2885	4746
45°	1207	2317	4250
50°	890	1765	3679
55°	743	1200	2923
60°	601	989	2055
65°	481	847	1100
70°	398	738	680
75°	377	712	635
80°	392	784	615
85°	552	1118	781

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4250 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.9	6.9
10°-20°	135.0	17.8
20°-30°	172.1	22.7
30°-40°	162.0	21.4
40°-50°	116.4	15.4
50°-60°	66.7	8.8
60°-70°	30.5	4.0
70°-80°	15.3	2.0
80°-90°	7.5	1.0
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°	359.0	47.4
0°-40°	521.0	68.8
0°-60°	704.1	93.0
0°-90°	757.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	757.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	566	566	566	566	566	
5°	544	555	553	557	562	51
15°	448	463	478	504	523	125
25°	328	343	367	407	442	150
35°	198	212	247	303	354	123
45°	73	88	140	206	256	61
55°	36	37	59	108	143	33
65°	17	24	30	34	40	17
75°	8	16	16	14	14	9
85°	4	8	8	7	6	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	565.5	565.5	565.5	565.5	565.5
2.5°	558.1	566.4	561.4	561.4	562.2
5°	544.1	554.8	553.1	557.3	562.2
7.5°	524.3	535.8	539.1	549.0	557.3
10°	501.1	514.3	520.9	536.6	547.4
12.5°	475.5	490.4	501.1	520.9	536.6
15°	447.5	463.2	478.0	503.6	522.6
17.5°	418.6	434.3	453.2	483.0	505.3
20°	389.7	405.4	426.8	458.2	485.4
22.5°	358.3	374.0	397.1	432.6	465.6
25°	327.8	342.6	367.4	407.0	442.5
27.5°	295.6	310.4	337.7	380.6	420.2
30°	263.4	278.2	307.9	354.2	397.9
32.5°	231.2	245.2	277.4	328.6	375.6
35°	198.1	212.2	246.9	303.0	354.2
37.5°	164.3	178.3	218.8	279.9	332.7
40°	132.1	147.8	188.2	256.8	309.6
42.5°	100.7	117.2	163.5	232.0	283.2
45°	72.7	88.3	139.5	205.6	255.9
47.5°	55.3	63.6	118.1	179.2	229.5
50°	48.7	49.5	96.6	155.2	201.4
52.5°	42.1	42.9	75.1	132.1	171.7
55°	36.3	37.2	58.6	108.2	142.8
57.5°	30.5	32.2	47.9	85.9	114.8
60°	25.6	28.9	42.1	65.2	87.5
62.5°	20.6	26.4	36.3	47.9	62.7
65°	17.3	23.9	30.5	33.8	39.6
67.5°	14.0	22.3	25.6	23.9	23.9
70°	11.6	19.8	21.5	19.8	19.8
72.5°	9.9	19.0	18.2	16.5	16.5
75°	8.3	16.5	15.7	14.0	14.0
77.5°	7.4	14.0	13.2	12.4	11.6
80°	5.8	11.6	11.6	10.7	9.1
82.5°	5.0	9.9	9.9	9.1	7.4
85°	4.1	8.3	8.3	7.4	5.8
87.5°	3.3	7.4	7.4	6.6	4.1
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	6.56	7.88	6.93	8.19	8.51	13.79	15.11	14.15	15.42	15.73
	3H	7.96	9.13	8.34	9.46	9.83	14.02	15.19	14.40	15.52	15.89
	4H	8.52	9.61	8.93	9.96	10.35	14.13	15.22	14.53	15.57	15.95
	6H	8.98	9.98	9.40	10.36	10.75	14.24	15.24	14.65	15.61	16.00
	8H	9.17	10.12	9.60	10.51	10.92	14.28	15.23	14.71	15.62	16.03
	12H	9.36	10.27	9.80	10.65	11.08	14.34	15.24	14.77	15.63	16.06
4H	2H	7.63	8.72	8.03	9.07	9.46	13.75	14.84	14.15	15.19	15.57
	3H	9.32	10.22	9.74	10.62	11.02	14.12	15.01	14.53	15.41	15.82
	4H	10.16	10.96	10.59	11.38	11.82	14.30	15.10	14.73	15.52	15.96
	6H	10.82	11.51	11.28	11.95	12.42	14.52	15.21	14.98	15.66	16.12
	8H	11.07	11.72	11.54	12.17	12.64	14.62	15.27	15.09	15.71	16.19
	12H	11.33	11.90	11.82	12.38	12.86	14.74	15.31	15.22	15.79	16.27
8H	4H	10.59	11.24	11.06	11.69	12.16	14.34	14.99	14.81	15.44	15.91
	6H	11.55	12.08	12.05	12.57	13.05	14.68	15.21	15.18	15.70	16.18
	8H	12.01	12.49	12.53	13.01	13.50	14.87	15.34	15.39	15.86	16.35
	12H	12.49	12.92	13.01	13.41	13.98	15.10	15.52	15.61	16.02	16.59
12H	4H	10.65	11.22	11.14	11.71	12.18	14.34	14.91	14.82	15.39	15.86
	6H	11.69	12.17	12.22	12.69	13.18	14.70	15.18	15.22	15.70	16.19
	8H	12.29	12.71	12.80	13.21	13.78	14.96	15.39	15.48	15.88	16.45