

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: P1059774

Luminaire Tested: S123RDR-H775D927-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059774
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D927-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

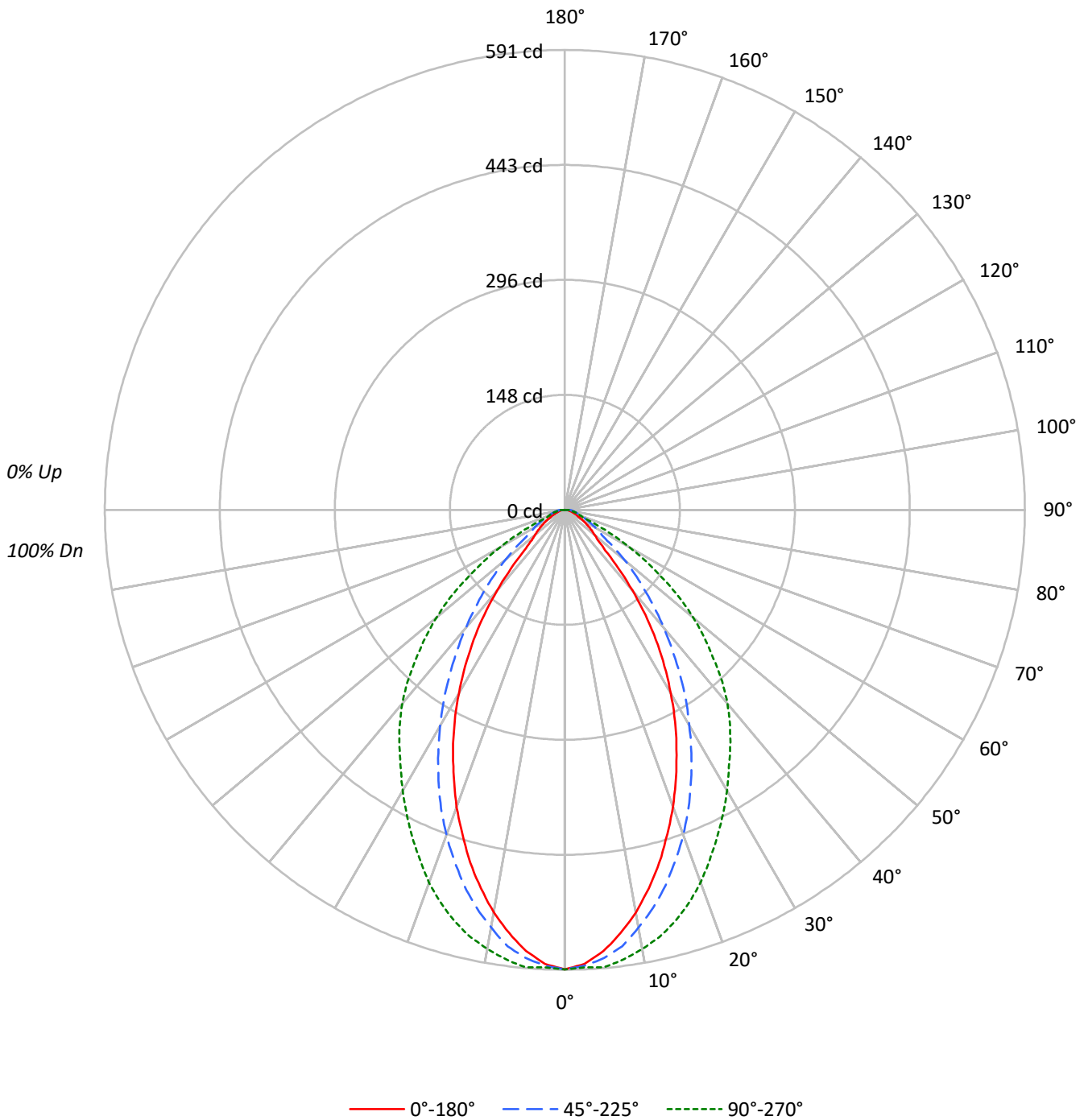
Lumens per Lamp: N/A
Luminaire Lumens: 792.8 lumens
Efficiency: N/A
Efficacy: 33.7 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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				
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79				
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71				
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64				
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58				
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52				
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48				
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44				
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40				
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6935	6935	6935
5°	6711	6814	6952
10°	6263	6500	6832
15°	5708	6073	6653
20°	5078	5556	6372
25°	4401	4971	6007
30°	3691	4338	5650
35°	2923	3691	5311
40°	2069	3037	4982
45°	1219	2400	4484
50°	912	1823	3928
55°	766	1232	3155
60°	620	1052	2240
65°	489	897	1181
70°	429	779	731
75°	399	730	699
80°	399	791	697
85°	498	1186	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4484 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.3	6.9
10°-20°	141.3	17.8
20°-30°	179.9	22.7
30°-40°	169.2	21.3
40°-50°	121.9	15.4
50°-60°	70.4	8.9
60°-70°	32.2	4.1
70°-80°	16.1	2.0
80°-90°	7.6	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°	375.5	47.4
0°-40°	544.7	68.7
0°-60°	737.0	93.0
0°-90°	792.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	792.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	591	591	591	591	591	
5°	569	579	578	584	590	53
15°	470	486	500	528	547	131
25°	340	357	384	426	464	155
35°	204	222	258	317	370	126
45°	73	92	144	217	270	62
55°	37	39	60	114	154	34
65°	18	25	32	36	42	18
75°	9	17	16	15	15	9
85°	4	8	9	8	7	4
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	590.6	590.6	590.6	590.6	590.6
2.5°	584.0	591.3	586.2	586.9	588.4
5°	569.3	578.8	578.1	584.0	589.8
7.5°	548.7	559.8	565.6	574.4	582.5
10°	525.3	537.7	545.1	561.2	573.0
12.5°	498.1	514.3	523.8	545.1	562.0
15°	469.5	486.4	499.6	527.5	547.3
17.5°	437.2	455.6	472.5	505.5	529.7
20°	406.4	424.0	444.6	480.5	509.9
22.5°	372.7	391.8	415.2	453.4	486.4
25°	339.7	357.3	383.7	426.2	463.6
27.5°	306.7	324.3	352.1	399.1	440.2
30°	272.2	290.5	319.9	371.9	416.7
32.5°	238.4	256.0	289.0	345.5	392.5
35°	203.9	221.6	257.5	316.9	370.5
37.5°	170.2	188.5	226.7	293.4	348.5
40°	135.0	154.8	198.1	269.2	325.0
42.5°	102.0	123.2	169.5	244.3	299.3
45°	73.4	91.7	144.5	217.2	270.0
47.5°	57.2	66.8	121.8	189.3	242.8
50°	49.9	51.4	99.8	163.6	215.0
52.5°	43.3	44.8	78.5	139.4	185.6
55°	37.4	38.9	60.2	114.4	154.1
57.5°	31.5	33.7	49.9	91.0	124.0
60°	26.4	29.3	44.8	69.7	95.4
62.5°	21.3	26.4	38.1	51.4	68.2
65°	17.6	24.9	32.3	35.9	42.5
67.5°	14.7	22.7	27.1	25.7	24.9
70°	12.5	20.5	22.7	20.5	21.3
72.5°	10.3	19.1	19.1	17.6	17.6
75°	8.8	16.9	16.1	15.4	15.4
77.5°	7.3	14.7	13.9	13.2	12.5
80°	5.9	11.7	11.7	11.0	10.3
82.5°	5.1	9.5	9.5	9.5	8.1
85°	3.7	8.1	8.8	8.1	6.6
87.5°	2.9	7.3	7.3	6.6	4.4
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	6.69	8.01	7.05	8.32	8.64	14.06	15.38	14.43	15.70	16.01
	3H	8.08	9.25	8.46	9.58	9.94	14.29	15.46	14.67	15.79	16.16
	4H	8.64	9.73	9.04	10.08	10.46	14.41	15.50	14.81	15.85	16.23
	6H	9.07	10.07	9.48	10.44	10.84	14.52	15.53	14.94	15.90	16.29
	8H	9.25	10.20	9.68	10.59	10.99	14.58	15.52	15.01	15.92	16.32
	12H	9.40	10.31	9.83	10.69	11.12	14.63	15.54	15.07	15.93	16.36
4H	2H	7.79	8.88	8.20	9.23	9.62	14.02	15.11	14.42	15.46	15.85
	3H	9.46	10.35	9.87	10.75	11.16	14.38	15.27	14.79	15.68	16.08
	4H	10.27	11.07	10.71	11.49	11.93	14.58	15.38	15.01	15.80	16.24
	6H	10.91	11.60	11.37	12.04	12.51	14.81	15.50	15.27	15.94	16.41
	8H	11.14	11.78	11.61	12.23	12.70	14.91	15.56	15.38	16.00	16.47
	12H	11.35	11.92	11.84	12.41	12.88	15.04	15.61	15.52	16.09	16.57
8H	4H	10.71	11.36	11.18	11.80	12.27	14.61	15.26	15.08	15.71	16.18
	6H	11.62	12.15	12.12	12.65	13.13	14.94	15.47	15.45	15.97	16.45
	8H	12.04	12.51	12.56	13.03	13.52	15.13	15.61	15.65	16.12	16.62
	12H	12.46	12.88	12.97	13.37	13.94	15.38	15.81	15.90	16.30	16.87
12H	4H	10.77	11.34	11.25	11.82	12.30	14.60	15.18	15.09	15.66	16.13
	6H	11.75	12.23	12.27	12.75	13.24	14.96	15.44	15.48	15.95	16.44
	8H	12.29	12.71	12.80	13.21	13.78	15.21	15.64	15.73	16.13	16.70