

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: P1059739

Luminaire Tested: S123RDR-H775D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059739
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H775D830-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

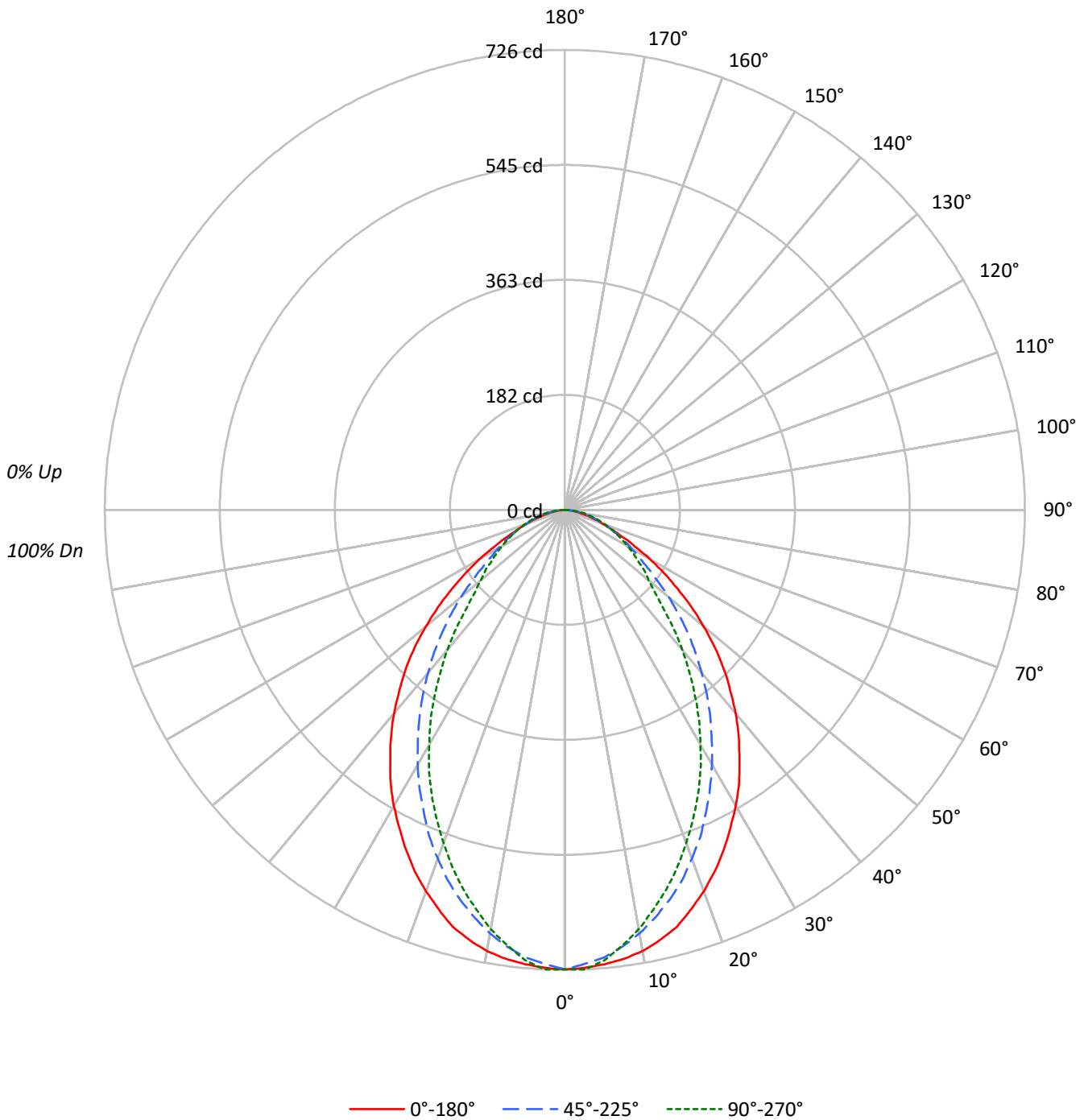
Lumens per Lamp: N/A
Luminaire Lumens: 1268.5 lumens
Efficiency: N/A
Efficacy: 54.0 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1059739

CATALOG NUMBER: S123RDR-H775D830-X4F0-XX-UDD-WVL-B

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	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8517	8517	8517
5°	8487	8364	8415
10°	8430	8097	8014
15°	8287	7746	7535
20°	8006	7320	6993
25°	7681	6822	6438
30°	7316	6300	5803
35°	6885	5735	5136
40°	6427	5144	4422
45°	5892	4545	3633
50°	5223	3902	3153
55°	4445	3265	2891
60°	3624	2846	2682
65°	2762	2520	2495
70°	2156	2245	2335
75°	1742	2019	2173
80°	1298	1650	2002
85°	701	1051	1765

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5892 cd/sqm



TEST NUMBER: P1059739

CATALOG NUMBER: S123RDR-H775D830-X4F0-XX-UDD-WVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.3	5.3
10°-20°	181.1	14.3
20°-30°	246.2	19.4
30°-40°	255.3	20.1
40°-50°	215.3	17.0
50°-60°	152.8	12.0
60°-70°	93.4	7.4
70°-80°	46.5	3.7
80°-90°	10.5	0.8
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°	494.7	39.0
0°-40°	750.0	59.1
0°-60°	1118.1	88.1
0°-90°	1268.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1268.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	725	725	725	725	725	
5°	720	720	710	714	714	68
15°	682	669	637	626	620	191
25°	593	567	526	507	497	272
35°	480	444	400	372	358	300
45°	355	317	274	236	219	272
55°	217	194	160	146	141	195
65°	99	96	91	91	90	101
75°	38	41	44	46	48	41
85°	5	6	8	11	13	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	725.3	725.3	725.3	725.3	725.3
2.5°	723.5	724.4	717.4	725.3	726.1
5°	720.0	720.0	709.6	713.9	713.9
7.5°	714.8	713.1	695.6	695.6	693.9
10°	707.0	701.7	679.1	674.7	672.1
12.5°	695.6	686.9	659.0	651.2	645.9
15°	681.7	668.6	637.2	625.9	619.8
17.5°	661.6	648.6	613.7	598.0	591.0
20°	640.7	621.5	585.8	570.1	559.6
22.5°	618.0	593.6	558.8	539.6	528.3
25°	592.8	566.6	526.5	507.3	496.9
27.5°	565.7	537.0	496.0	474.2	463.8
30°	539.6	506.5	464.6	440.2	428.0
32.5°	511.7	474.2	431.5	406.2	394.0
35°	480.3	443.7	400.1	372.2	358.3
37.5°	450.7	413.2	367.9	338.2	322.5
40°	419.3	381.8	335.6	305.1	288.5
42.5°	386.2	350.4	305.1	269.4	253.7
45°	354.8	317.3	273.7	236.2	218.8
47.5°	320.8	285.9	243.2	204.9	192.6
50°	285.9	253.7	213.6	178.7	172.6
52.5°	251.9	224.9	183.9	161.3	158.7
55°	217.1	194.4	159.5	145.6	141.2
57.5°	184.8	168.2	136.9	129.9	128.1
60°	154.3	140.3	121.2	116.8	114.2
62.5°	124.7	116.8	105.5	103.7	102.0
65°	99.4	95.9	90.7	90.7	89.8
67.5°	78.5	78.5	77.6	79.3	78.5
70°	62.8	63.6	65.4	67.1	68.0
72.5°	49.7	52.3	54.0	56.7	57.5
75°	38.4	41.0	44.5	46.2	47.9
77.5°	27.9	30.5	34.0	36.6	38.4
80°	19.2	20.9	24.4	27.9	29.6
82.5°	12.2	13.1	15.7	19.2	20.9
85°	5.2	6.1	7.8	11.3	13.1
87.5°	0.0	0.0	0.9	3.5	6.1
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	16.25	17.70	16.61	18.01	18.33	14.35	15.80	14.71	16.11	16.43
	3H	17.15	18.44	17.53	18.77	19.13	15.92	17.22	16.30	17.55	17.91
	4H	17.43	18.64	17.83	18.99	19.37	16.52	17.73	16.92	18.08	18.46
	6H	17.58	18.70	17.99	19.07	19.46	16.97	18.08	17.38	18.45	18.85
	8H	17.60	18.67	18.03	19.06	19.46	17.12	18.18	17.54	18.57	18.97
	12H	17.60	18.61	18.03	19.00	19.43	17.21	18.23	17.65	18.61	19.04
4H	2H	16.49	17.71	16.89	18.06	18.44	14.89	16.10	15.29	16.45	16.83
	3H	17.61	18.61	18.02	19.01	19.41	16.66	17.66	17.07	18.07	18.47
	4H	18.00	18.90	18.43	19.31	19.75	17.37	18.27	17.81	18.69	19.13
	6H	18.24	19.02	18.70	19.46	19.93	17.95	18.73	18.41	19.17	19.63
	8H	18.28	19.01	18.75	19.46	19.92	18.14	18.87	18.60	19.31	19.78
	12H	18.29	18.94	18.78	19.42	19.89	18.28	18.92	18.76	19.40	19.88
8H	4H	18.16	18.88	18.62	19.33	19.80	17.58	18.31	18.05	18.76	19.23
	6H	18.47	19.07	18.97	19.56	20.04	18.26	18.86	18.76	19.35	19.83
	8H	18.55	19.08	19.06	19.59	20.08	18.52	19.05	19.03	19.57	20.06
	12H	18.58	19.05	19.09	19.55	20.11	18.73	19.20	19.24	19.69	20.26
12H	4H	18.16	18.81	18.64	19.29	19.76	17.58	18.23	18.07	18.71	19.18
	6H	18.48	19.02	19.00	19.53	20.02	18.27	18.81	18.79	19.32	19.81
	8H	18.60	19.07	19.11	19.57	20.13	18.57	19.05	19.08	19.54	20.11