

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: P1059348

Luminaire Tested: S123RDRP-S775D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059348
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S775D840-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

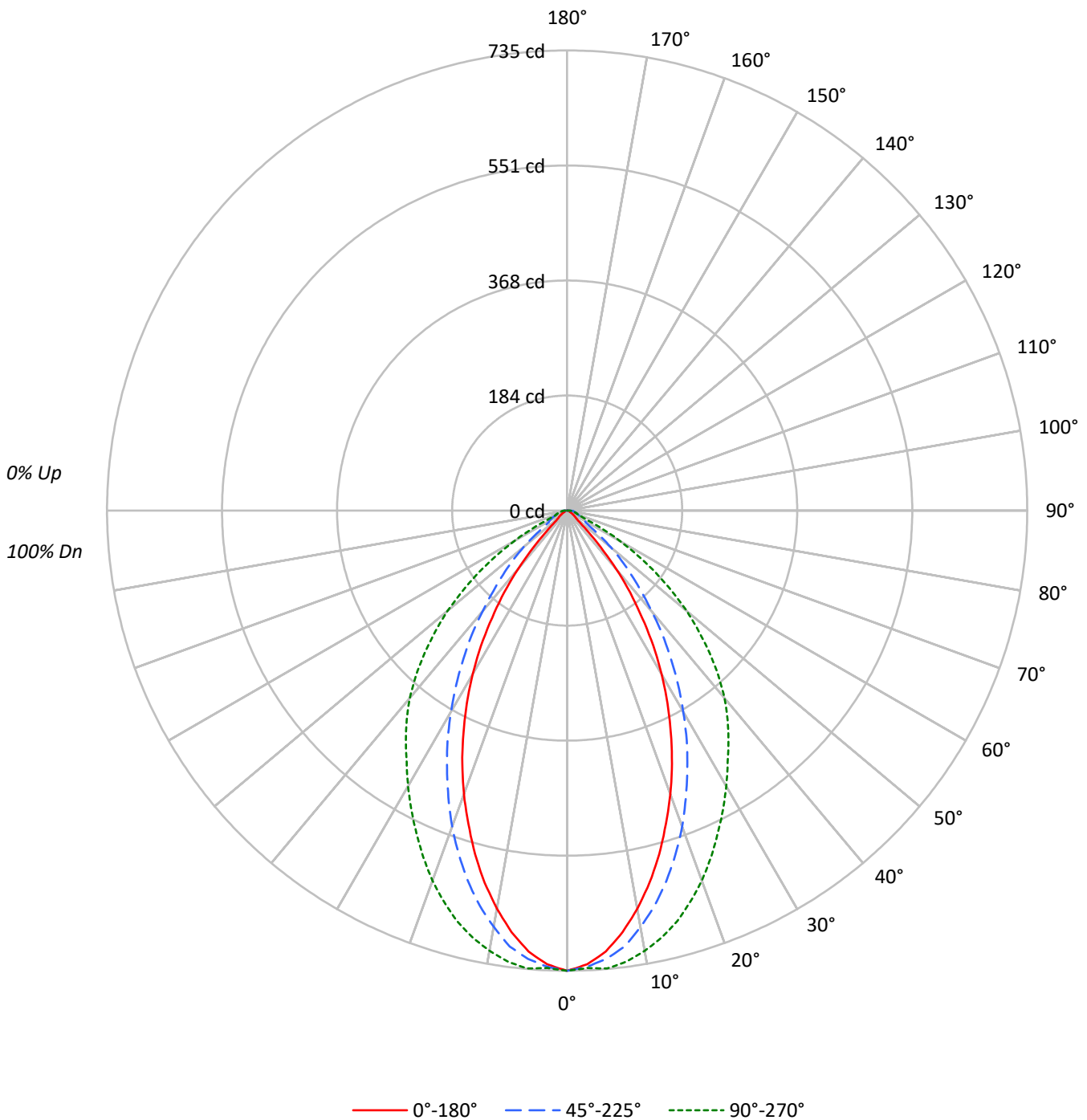
Lumens per Lamp: N/A
Luminaire Lumens: 882.6 lumens
Efficiency: N/A
Efficacy: 34.2 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 25.8
Input Voltage (V): 120
Input Current (A_{in}): 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: P1059348

CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-BVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1059348

CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-BVL-W

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	88	94	90	86	91	87	85	88	85	83	81
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8632	8632	8632
5°	8335	8472	8654
10°	7694	8051	8512
15°	6905	7445	8256
20°	6023	6712	7859
25°	5081	5882	7372
30°	4087	5029	6889
35°	2992	4140	6439
40°	1865	3228	5997
45°	706	2406	5342
50°	336	1659	4552
55°	258	909	3519
60°	181	770	2313
65°	133	670	967
70°	134	632	632
75°	177	658	658
80°	264	784	717
85°	525	1307	1037

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5342 cd/sqm



TEST NUMBER: P1059348

CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-BVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.5	7.6
10°-20°	173.0	19.6
20°-30°	214.2	24.3
30°-40°	192.0	21.8
40°-50°	125.9	14.3
50°-60°	63.0	7.1
60°-70°	24.6	2.8
70°-80°	13.9	1.6
80°-90°	8.5	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°	454.7	51.5
0°-40°	646.7	73.3
0°-60°	835.6	94.7
0°-90°	882.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	882.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	735	735	735	735	735	
5°	707	719	719	726	734	66
15°	568	591	612	653	679	158
25°	392	416	454	519	569	179
35°	209	237	289	376	449	130
45°	42	69	145	248	322	40
55°	13	16	44	122	172	12
65°	5	14	24	32	35	5
75°	4	14	14	14	14	4
85°	4	10	10	10	8	3
90°	0	0	0	0	0	



TEST NUMBER: P1059348

CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-BVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	735.1	735.1	735.1	735.1	735.1
2.5°	725.5	736.1	729.3	730.3	731.3
5°	707.1	718.7	718.7	726.4	734.2
7.5°	679.1	692.6	702.3	715.8	726.4
10°	645.3	661.7	675.2	699.4	713.9
12.5°	608.6	628.9	646.2	678.1	698.4
15°	568.0	591.2	612.4	653.0	679.1
17.5°	524.5	547.7	575.7	623.1	654.9
20°	482.0	505.2	537.1	590.2	628.9
22.5°	437.6	461.7	495.6	554.5	599.9
25°	392.2	416.3	454.0	518.7	569.0
27.5°	346.8	370.9	413.4	484.0	539.0
30°	301.4	325.5	370.9	446.3	508.1
32.5°	256.0	282.1	329.4	411.5	477.2
35°	208.7	236.7	288.8	375.8	449.2
37.5°	165.2	191.3	250.2	344.9	421.2
40°	121.7	149.7	210.6	314.9	391.2
42.5°	79.2	109.2	174.8	282.1	357.4
45°	42.5	68.6	144.9	248.3	321.7
47.5°	23.2	37.7	116.9	212.5	285.0
50°	18.4	21.3	90.8	181.6	249.2
52.5°	15.5	17.4	64.7	152.6	209.6
55°	12.6	15.5	44.4	121.7	171.9
57.5°	10.6	13.5	34.8	94.7	134.3
60°	7.7	11.6	32.8	69.6	98.5
62.5°	5.8	12.6	29.0	48.3	64.7
65°	4.8	14.5	24.1	31.9	34.8
67.5°	3.9	15.5	21.3	20.3	20.3
70°	3.9	14.5	18.4	17.4	18.4
72.5°	3.9	15.5	16.4	15.5	16.4
75°	3.9	14.5	14.5	14.5	14.5
77.5°	3.9	13.5	13.5	12.6	12.6
80°	3.9	11.6	11.6	11.6	10.6
82.5°	3.9	10.6	10.6	10.6	8.7
85°	3.9	9.7	9.7	9.7	7.7
87.5°	2.9	8.7	9.7	8.7	5.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059348
 CATALOG NUMBER: S123RDRP-S775D840-X4F0-XX-UDD-BVL-W

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	0.00	1.09	0.20	1.40	1.72	14.10	15.35	14.46	15.66	15.98
	3H	2.18	3.29	2.56	3.63	3.99	14.18	15.29	14.56	15.62	15.98
	4H	3.29	4.33	3.70	4.68	5.06	14.25	15.29	14.66	15.64	16.02
	6H	4.29	5.24	4.70	5.61	6.00	14.36	15.31	14.77	15.68	16.07
	8H	4.77	5.67	5.20	6.06	6.47	14.42	15.31	14.85	15.71	16.11
	12H	5.33	6.19	5.77	6.58	7.01	14.50	15.35	14.93	15.74	16.17
4H	2H	3.08	4.12	3.49	4.47	4.85	13.95	14.98	14.35	15.33	15.72
	3H	5.42	6.26	5.83	6.66	7.07	14.13	14.97	14.54	15.38	15.78
	4H	6.79	7.54	7.22	7.96	8.41	14.28	15.03	14.71	15.45	15.90
	6H	7.88	8.53	8.34	8.98	9.44	14.50	15.16	14.97	15.60	16.07
	8H	8.33	8.94	8.81	9.39	9.86	14.63	15.24	15.10	15.68	16.16
	12H	8.83	9.37	9.32	9.86	10.33	14.80	15.34	15.29	15.82	16.30
8H	4H	7.76	8.37	8.23	8.82	9.29	14.27	14.88	14.74	15.33	15.80
	6H	9.28	9.78	9.79	10.28	10.76	14.61	15.11	15.12	15.61	16.09
	8H	10.05	10.50	10.58	11.02	11.51	14.84	15.29	15.37	15.81	16.30
	12H	10.87	11.26	11.38	11.76	12.33	15.18	15.58	15.69	16.07	16.64
12H	4H	7.94	8.48	8.42	8.96	9.43	14.26	14.80	14.75	15.28	15.76
	6H	9.60	10.05	10.12	10.56	11.06	14.63	15.08	15.15	15.60	16.09
	8H	10.55	10.95	11.07	11.45	12.02	14.94	15.34	15.46	15.83	16.41