

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: P243568

Luminaire Tested: S124RDRP-H575D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243568
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-65)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-H575D835-X4F0-XX-UDD-F-W
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

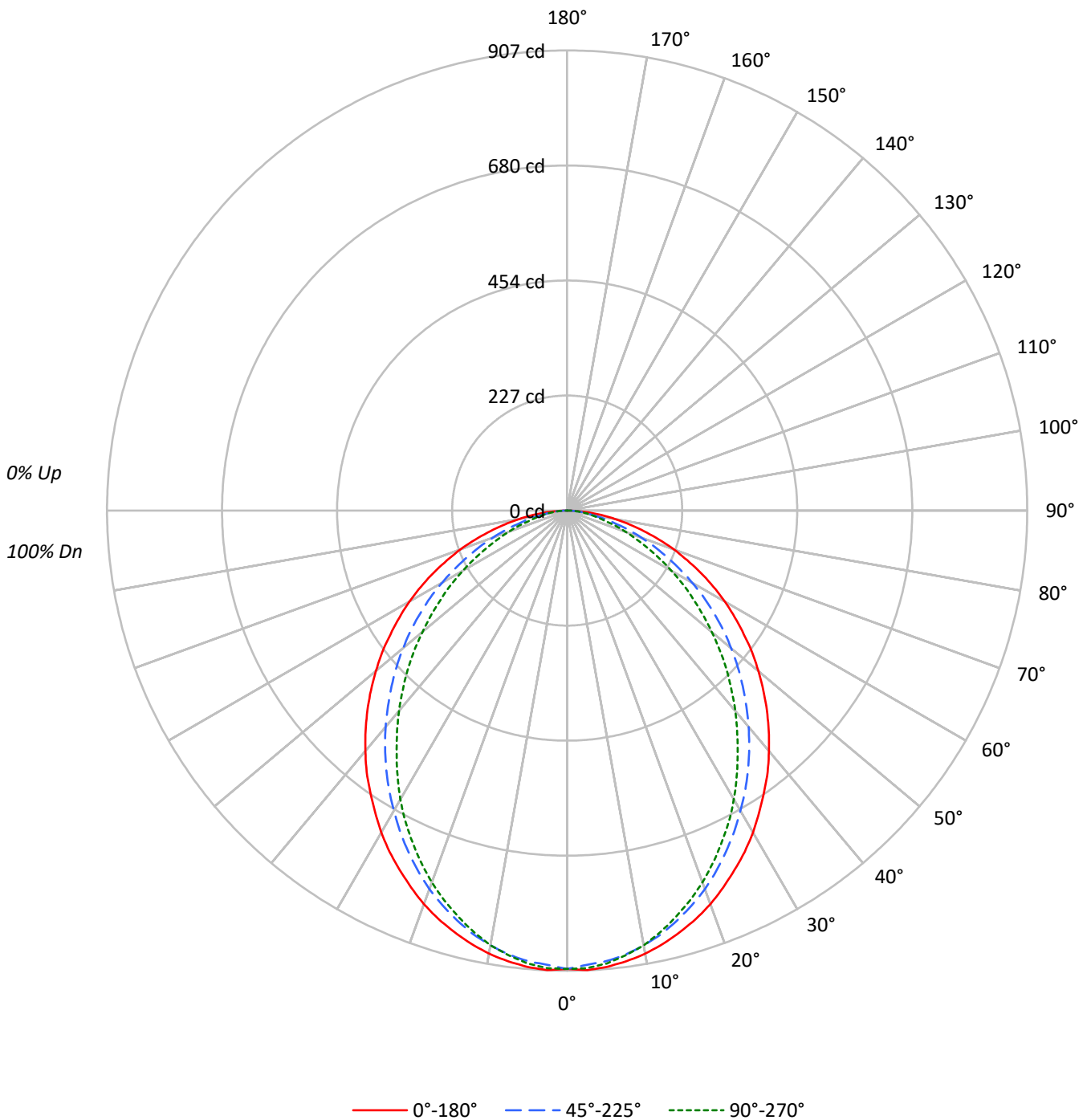
Lumens per Lamp: N/A
Luminaire Lumens: 2130.2 lumens
Efficiency: N/A
Efficacy: 123.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.1 / 1.25
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 17.2
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: P243568

CATALOG NUMBER: S124RDRP-H575D835-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot



TEST NUMBER: P243568

CATALOG NUMBER: S124RDRP-H575D835-X4F0-XX-UDD-F-W

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38
8	62	49	41	35	61	49	41	35	47	40	35	46	39	35	45	39	34
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8030	8030	8030
5°	8055	7954	7995
10°	8003	7853	7853
15°	7914	7700	7626
20°	7808	7511	7378
25°	7663	7271	7074
30°	7520	7007	6747
35°	7343	6750	6359
40°	7179	6460	5987
45°	6998	6151	5598
50°	6804	5836	5144
55°	6591	5475	4691
60°	6388	5061	4219
65°	6114	4570	3687
70°	5822	4036	3204
75°	5382	3366	2610
80°	4914	2626	2391
85°	4355	2519	2376

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6998 cd/sqm



TEST NUMBER: P243568

CATALOG NUMBER: S124RDRP-H575D835-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.0	4.0
10°-20°	237.3	11.1
20°-30°	344.0	16.2
30°-40°	392.1	18.4
40°-50°	381.5	17.9
50°-60°	320.5	15.0
60°-70°	223.3	10.5
70°-80°	115.3	5.4
80°-90°	31.2	1.5
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°	666.3	31.3
0°-40°	1058.4	49.7
0°-60°	1760.4	82.6
0°-90°	2130.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2130.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	903	903	903	903	903	
5°	903	900	891	898	896	86
15°	860	853	837	835	829	243
25°	781	767	741	731	721	360
35°	677	656	622	599	586	424
45°	557	530	489	458	445	429
55°	425	398	353	317	303	381
65°	291	263	217	186	175	288
75°	157	133	98	82	76	167
85°	43	27	25	23	23	49
90°	0	0	0	0	0	



TEST NUMBER: P243568

CATALOG NUMBER: S124RDRP-H575D835-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	903.4	903.4	903.4	903.4	903.4
2.5°	906.7	904.0	896.0	903.4	902.7
5°	902.7	900.0	891.4	898.0	896.0
7.5°	896.0	892.7	882.7	887.4	884.0
10°	886.7	883.4	870.0	873.4	870.0
12.5°	874.7	870.0	855.4	856.0	850.7
15°	860.0	853.4	836.7	835.4	828.7
17.5°	844.0	835.4	816.0	812.7	805.4
20°	825.4	814.7	794.0	786.7	780.0
22.5°	804.0	791.4	768.7	760.0	751.3
25°	781.3	766.7	741.3	730.7	721.3
27.5°	758.0	740.7	713.3	700.0	690.7
30°	732.7	712.7	682.7	667.3	657.3
32.5°	704.7	684.7	653.3	634.7	622.0
35°	676.7	656.0	622.0	598.7	586.0
37.5°	649.3	626.0	589.3	565.3	550.7
40°	618.7	594.0	556.7	529.3	516.0
42.5°	588.0	562.7	522.7	494.0	479.3
45°	556.7	530.0	489.3	458.0	445.3
47.5°	524.7	498.0	456.0	423.3	408.7
50°	492.0	465.3	422.0	386.0	372.0
52.5°	460.0	432.0	388.7	352.0	337.3
55°	425.3	398.0	353.3	317.3	302.7
57.5°	392.0	363.3	320.0	283.3	271.3
60°	359.3	330.7	284.7	249.3	237.3
62.5°	324.7	296.0	250.7	216.7	206.0
65°	290.7	262.7	217.3	186.0	175.3
67.5°	256.0	230.7	186.7	156.7	148.0
70°	224.0	195.3	155.3	129.3	123.3
72.5°	190.0	164.7	126.0	104.7	100.0
75°	156.7	132.7	98.0	82.0	76.0
77.5°	126.0	102.7	74.0	60.7	60.7
80°	96.0	75.3	51.3	48.0	46.7
82.5°	68.0	48.7	38.0	35.3	34.7
85°	42.7	27.3	24.7	23.3	23.3
87.5°	20.7	12.7	12.7	12.0	12.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P243568
 CATALOG NUMBER: S124RDRP-H575D835-X4F0-XX-UDD-F-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	18.69	20.26	19.05	20.58	20.89	16.79	18.37	17.16	18.68	18.99
	3H	20.50	21.92	20.88	22.25	22.61	18.05	19.47	18.43	19.80	20.16
	4H	21.19	22.52	21.59	22.87	23.25	18.45	19.78	18.85	20.13	20.51
	6H	21.70	22.94	22.11	23.30	23.69	18.73	19.96	19.14	20.33	20.72
	8H	21.87	23.05	22.30	23.44	23.84	18.83	20.01	19.26	20.40	20.80
	12H	21.99	23.12	22.42	23.50	23.93	18.91	20.04	19.34	20.42	20.85
4H	2H	19.04	20.37	19.44	20.72	21.10	17.49	18.83	17.89	19.17	19.55
	3H	21.06	22.17	21.47	22.57	22.97	18.94	20.06	19.35	20.45	20.85
	4H	21.87	22.87	22.30	23.29	23.72	19.42	20.43	19.86	20.84	21.28
	6H	22.51	23.38	22.97	23.83	24.28	19.79	20.66	20.24	21.10	21.56
	8H	22.73	23.54	23.19	23.99	24.45	19.93	20.74	20.39	21.19	21.65
	12H	22.89	23.63	23.37	24.10	24.57	20.04	20.78	20.52	21.25	21.72
8H	4H	21.98	22.79	22.44	23.23	23.70	19.76	20.57	20.22	21.02	21.48
	6H	22.70	23.38	23.20	23.87	24.34	20.21	20.88	20.70	21.37	21.85
	8H	22.97	23.58	23.48	24.09	24.58	20.40	21.01	20.91	21.52	22.00
	12H	23.20	23.74	23.71	24.23	24.79	20.58	21.12	21.09	21.61	22.18
12H	4H	21.97	22.70	22.45	23.18	23.65	19.80	20.53	20.28	21.01	21.48
	6H	22.69	23.30	23.20	23.81	24.30	20.27	20.88	20.78	21.39	21.87
	8H	23.01	23.55	23.52	24.04	24.60	20.52	21.05	21.02	21.54	22.11