

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: P243455

Luminaire Tested: S124DRP-H575D927-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243455
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-84)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124DRP-H575D927-X4F0-XX-UDD-F-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

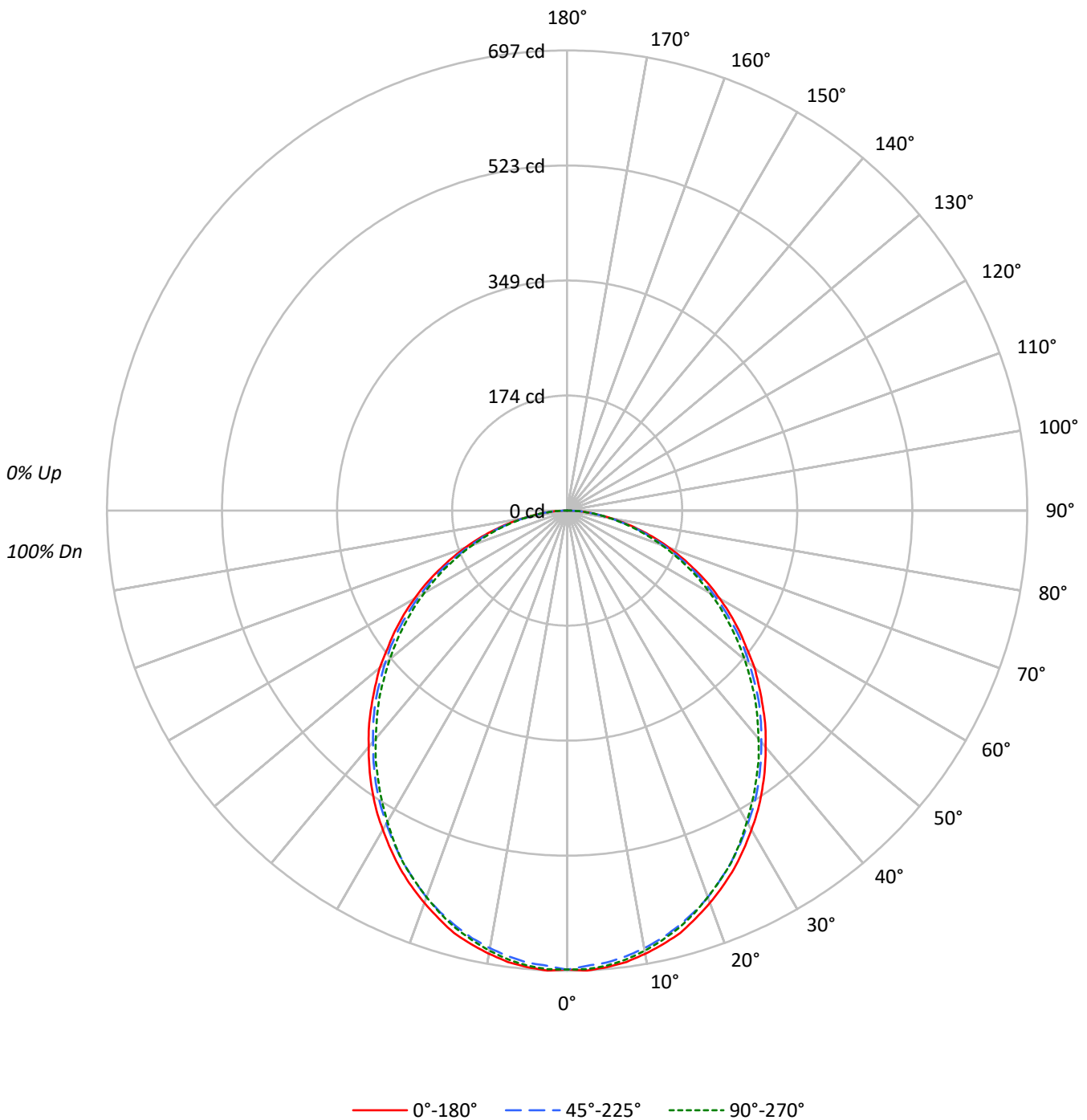
Lumens per Lamp: N/A
Luminaire Lumens: 1789.6 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

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: P243455

CATALOG NUMBER: S124DRP-H575D927-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot



TEST NUMBER: P243455

CATALOG NUMBER: S124DRP-H575D927-X4F0-XX-UDD-F-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	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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84																												
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70																												
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60																												
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51																												
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44																												
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39																												
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35																												
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31																												
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28																												
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6180	6180	6180
5°	6192	6133	6173
10°	6152	6075	6112
15°	6096	5996	6023
20°	5982	5896	5891
25°	5870	5764	5770
30°	5730	5620	5586
35°	5592	5481	5414
40°	5428	5310	5231
45°	5268	5163	5062
50°	5124	4976	4850
55°	4936	4804	4655
60°	4747	4585	4444
65°	4520	4366	4223
70°	4278	4086	3956
75°	3943	3788	3671
80°	3476	3414	3327
85°	3060	3060	2998

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5268 cd/sqm

TEST NUMBER: P243455

CATALOG NUMBER: S124DRP-H575D927-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.5	3.7
10°-20°	184.8	10.3
20°-30°	272.1	15.2
30°-40°	316.6	17.7
40°-50°	316.8	17.7
50°-60°	277.0	15.5
60°-70°	205.7	11.5
70°-80°	117.2	6.6
80°-90°	33.7	1.9
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°	522.5	29.2
0°-40°	839.1	46.9
0°-60°	1432.9	80.1
0°-90°	1789.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1789.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	695	695	695	695	695	
5°	694	693	687	692	692	66
15°	662	659	652	656	654	186
25°	598	596	588	589	588	275
35°	515	511	505	501	499	322
45°	419	417	411	404	403	324
55°	318	316	310	303	300	285
65°	215	213	208	203	201	213
75°	115	113	110	108	107	122
85°	30	29	30	29	29	34
90°	0	0	0	0	0	



TEST NUMBER: P243455

CATALOG NUMBER: S124DRP-H575D927-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	695.2	695.2	695.2	695.2	695.2
2.5°	697.4	695.7	690.1	695.7	695.2
5°	694.0	692.9	687.3	692.4	691.8
7.5°	689.5	687.3	681.0	686.1	685.6
10°	681.6	679.9	673.1	678.2	677.1
12.5°	672.6	670.9	663.5	667.5	666.3
15°	662.4	659.0	651.6	655.6	654.5
17.5°	647.7	645.4	638.0	641.4	639.7
20°	632.4	629.6	623.3	623.9	622.8
22.5°	616.0	613.2	605.8	608.1	605.8
25°	598.5	595.6	587.7	589.4	588.3
27.5°	578.7	575.8	568.5	569.0	566.8
30°	558.3	554.9	547.5	547.0	544.2
32.5°	537.9	534.5	527.2	524.9	522.1
35°	515.3	510.8	505.1	500.6	498.9
37.5°	492.1	489.9	481.4	478.5	476.3
40°	467.8	465.5	457.6	453.6	450.8
42.5°	444.6	441.8	434.4	428.8	426.5
45°	419.1	417.4	410.7	404.4	402.7
47.5°	394.3	393.7	385.2	379.0	376.2
50°	370.5	367.1	359.8	354.1	350.7
52.5°	342.8	342.2	336.0	328.6	325.8
55°	318.5	316.2	310.0	303.2	300.4
57.5°	293.0	291.9	284.0	278.3	275.5
60°	267.0	264.7	257.9	252.8	250.0
62.5°	242.1	239.3	233.0	228.0	225.1
65°	214.9	213.2	207.6	203.1	200.8
67.5°	189.5	187.2	181.6	177.6	175.4
70°	164.6	161.2	157.2	153.9	152.2
72.5°	139.7	136.9	133.5	131.2	129.0
75°	114.8	112.6	110.3	108.0	106.9
77.5°	91.1	88.8	87.7	87.1	86.0
80°	67.9	66.7	66.7	66.2	65.0
82.5°	48.1	46.9	46.9	46.9	46.4
85°	30.0	29.4	30.0	28.8	29.4
87.5°	14.1	14.1	14.7	14.1	14.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P243455
 CATALOG NUMBER: S124DRP-H575D927-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	17.63	19.24	17.99	19.56	19.87	17.28	18.89	17.64	19.21	19.52
	3H	19.38	20.84	19.76	21.16	21.52	18.99	20.45	19.37	20.78	21.14
	4H	20.04	21.41	20.43	21.76	22.13	19.64	21.01	20.04	21.36	21.74
	6H	20.51	21.78	20.92	22.15	22.54	20.13	21.40	20.54	21.77	22.16
	8H	20.66	21.88	21.09	22.27	22.67	20.29	21.50	20.71	21.89	22.29
	12H	20.77	21.93	21.20	22.31	22.74	20.40	21.57	20.83	21.95	22.38
4H	2H	18.20	19.57	18.60	19.92	20.30	17.92	19.30	18.32	19.64	20.02
	3H	20.17	21.32	20.58	21.72	22.12	19.85	21.01	20.26	21.40	21.80
	4H	20.96	22.00	21.39	22.41	22.85	20.63	21.67	21.06	22.08	22.52
	6H	21.56	22.47	22.01	22.91	23.37	21.25	22.16	21.70	22.60	23.05
	8H	21.76	22.61	22.22	23.05	23.52	21.46	22.31	21.92	22.75	23.21
	12H	21.91	22.68	22.39	23.15	23.62	21.61	22.38	22.09	22.85	23.32
8H	4H	21.24	22.09	21.70	22.53	23.00	20.95	21.80	21.41	22.24	22.71
	6H	21.96	22.67	22.45	23.16	23.63	21.69	22.40	22.19	22.89	23.36
	8H	22.23	22.87	22.74	23.37	23.86	21.98	22.61	22.49	23.12	23.60
	12H	22.46	23.02	22.96	23.51	24.07	22.21	22.77	22.72	23.26	23.82
12H	4H	21.27	22.03	21.75	22.51	22.98	20.99	21.75	21.47	22.23	22.70
	6H	22.01	22.65	22.52	23.15	23.64	21.75	22.39	22.26	22.89	23.38
	8H	22.34	22.90	22.85	23.39	23.95	22.10	22.66	22.60	23.15	23.71