

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: P243567

Luminaire Tested: S124RDRP-H350D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243567
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-H350D835-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

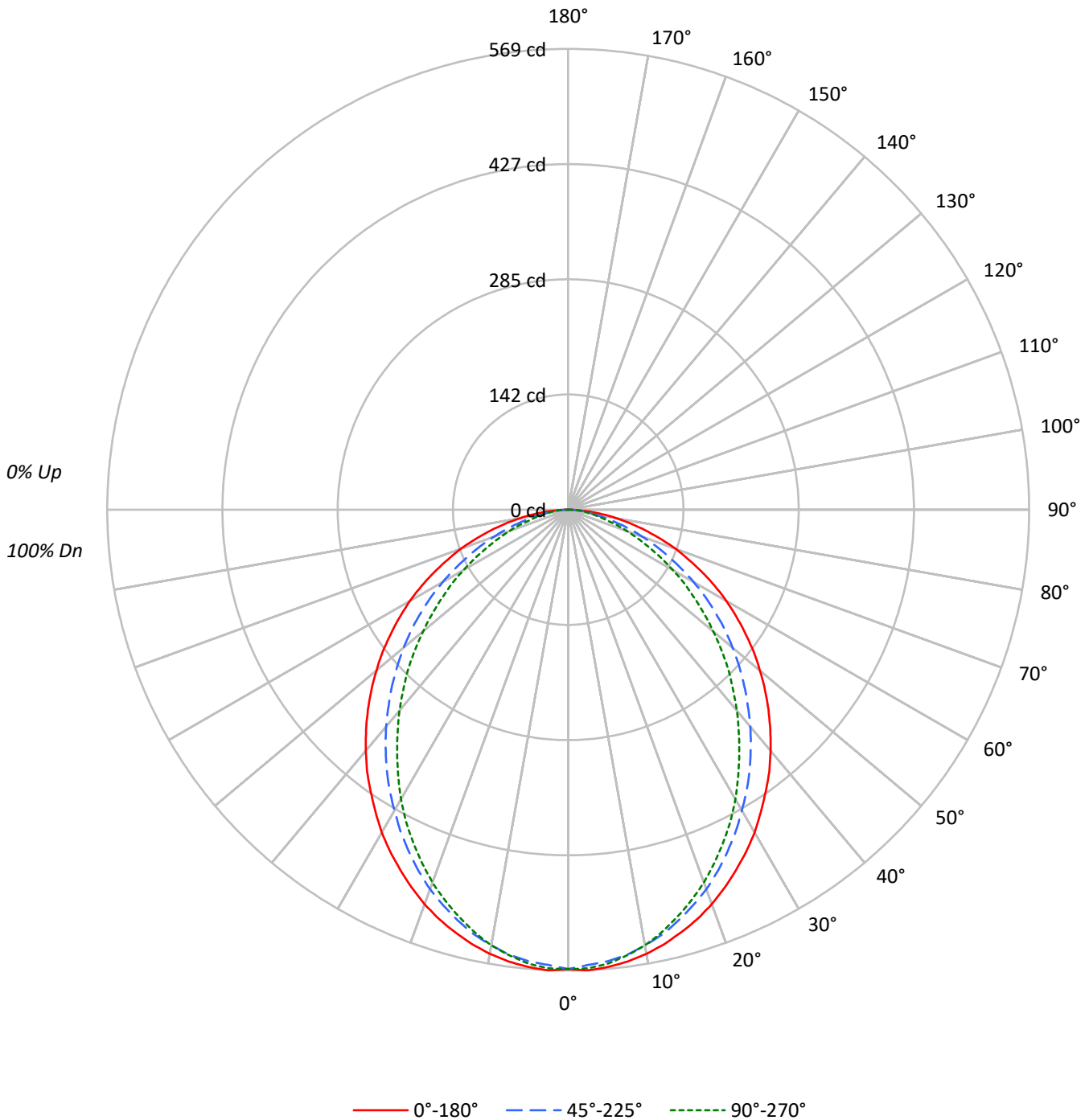
Lumens per Lamp: N/A
Luminaire Lumens: 1337.6 lumens
Efficiency: N/A
Efficacy: 119.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.1 / 1.25
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 11.2
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: P243567

CATALOG NUMBER: S124RDRP-H350D835-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P243567

CATALOG NUMBER: S124RDRP-H350D835-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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	49	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5042	5042	5042
5°	5057	4994	5020
10°	5026	4931	4931
15°	4969	4835	4789
20°	4903	4716	4633
25°	4812	4566	4443
30°	4722	4400	4237
35°	4611	4239	3993
40°	4508	4057	3760
45°	4395	3863	3515
50°	4272	3665	3230
55°	4139	3439	2946
60°	4011	3179	2649
65°	3839	2871	2316
70°	3657	2534	2012
75°	3379	2112	1638
80°	3087	1648	1500
85°	2733	1581	1499

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4395 cd/sqm



TEST NUMBER: P243567

CATALOG NUMBER: S124RDRP-H350D835-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.3	4.0
10°-20°	149.0	11.1
20°-30°	216.0	16.2
30°-40°	246.2	18.4
40°-50°	239.6	17.9
50°-60°	201.3	15.0
60°-70°	140.2	10.5
70°-80°	72.4	5.4
80°-90°	19.6	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°	418.4	31.3
0°-40°	664.6	49.7
0°-60°	1105.4	82.6
0°-90°	1337.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1337.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	567	567	567	567	567	
5°	567	565	560	564	563	54
15°	540	536	525	524	520	152
25°	491	481	466	459	453	226
35°	425	412	391	376	368	266
45°	350	333	307	288	280	270
55°	267	250	222	199	190	239
65°	182	165	136	117	110	181
75°	98	83	62	52	48	105
85°	27	17	16	15	15	31
90°	0	0	0	0	0	



TEST NUMBER: P243567

CATALOG NUMBER: S124RDRP-H350D835-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	567.2	567.2	567.2	567.2	567.2
2.5°	569.3	567.7	562.6	567.2	566.8
5°	566.8	565.2	559.7	563.9	562.6
7.5°	562.6	560.5	554.3	557.2	555.1
10°	556.8	554.7	546.3	548.4	546.3
12.5°	549.2	546.3	537.1	537.5	534.2
15°	540.0	535.8	525.4	524.5	520.4
17.5°	530.0	524.5	512.4	510.3	505.7
20°	518.3	511.6	498.6	494.0	489.8
22.5°	504.9	496.9	482.7	477.2	471.8
25°	490.6	481.4	465.5	458.8	453.0
27.5°	476.0	465.1	447.9	439.6	433.7
30°	460.1	447.5	428.7	419.0	412.8
32.5°	442.5	429.9	410.3	398.5	390.6
35°	424.9	411.9	390.6	375.9	368.0
37.5°	407.7	393.1	370.1	355.0	345.8
40°	388.5	373.0	349.6	332.4	324.0
42.5°	369.2	353.3	328.2	310.2	301.0
45°	349.6	332.8	307.3	287.6	279.6
47.5°	329.5	312.7	286.3	265.8	256.6
50°	308.9	292.2	265.0	242.4	233.6
52.5°	288.9	271.3	244.1	221.0	211.8
55°	267.1	249.9	221.9	199.3	190.1
57.5°	246.2	228.2	200.9	177.9	170.4
60°	225.6	207.6	178.8	156.6	149.0
62.5°	203.9	185.9	157.4	136.1	129.4
65°	182.5	164.9	136.5	116.8	110.1
67.5°	160.8	144.8	117.2	98.4	92.9
70°	140.7	122.7	97.5	81.2	77.4
72.5°	119.3	103.4	79.1	65.7	62.8
75°	98.4	83.3	61.5	51.5	47.7
77.5°	79.1	64.5	46.5	38.1	38.1
80°	60.3	47.3	32.2	30.1	29.3
82.5°	42.7	30.6	23.9	22.2	21.8
85°	26.8	17.2	15.5	14.7	14.7
87.5°	13.0	8.0	8.0	7.5	7.5
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P243567

CATALOG NUMBER: S124RDRP-H350D835-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	17.07	18.65	17.44	18.96	19.28	15.17	16.75	15.54	17.06	17.38
	3H	18.89	20.31	19.27	20.63	21.00	16.44	17.86	16.81	18.18	18.54
	4H	19.57	20.91	19.97	21.25	21.63	16.83	18.17	17.23	18.51	18.89
	6H	20.09	21.32	20.50	21.68	22.08	17.11	18.35	17.52	18.71	19.10
	8H	20.26	21.43	20.68	21.82	22.22	17.21	18.39	17.64	18.78	19.18
	12H	20.37	21.50	20.80	21.88	22.31	17.29	18.42	17.72	18.80	19.23
4H	2H	17.43	18.76	17.82	19.11	19.48	15.88	17.21	16.28	17.56	17.94
	3H	19.44	20.55	19.85	20.95	21.35	17.33	18.44	17.74	18.84	19.24
	4H	20.25	21.26	20.68	21.67	22.11	17.81	18.81	18.24	19.22	19.66
	6H	20.89	21.77	21.35	22.21	22.67	18.17	19.05	18.63	19.49	19.94
	8H	21.11	21.93	21.57	22.37	22.84	18.31	19.13	18.77	19.57	20.03
	12H	21.28	22.01	21.76	22.49	22.96	18.43	19.16	18.91	19.64	20.11
8H	4H	20.36	21.18	20.82	21.62	22.09	18.14	18.96	18.60	19.40	19.86
	6H	21.08	21.76	21.58	22.25	22.73	18.59	19.27	19.08	19.76	20.23
	8H	21.36	21.96	21.87	22.47	22.96	18.78	19.39	19.30	19.90	20.39
	12H	21.59	22.12	22.09	22.61	23.18	18.97	19.51	19.48	20.00	20.56
12H	4H	20.35	21.08	20.83	21.56	22.03	18.18	18.92	18.67	19.39	19.86
	6H	21.08	21.69	21.59	22.19	22.68	18.65	19.26	19.16	19.77	20.26
	8H	21.39	21.93	21.90	22.42	22.98	18.90	19.44	19.41	19.93	20.49