

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: P243582

Luminaire Tested: S124RDRP-H575D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243582
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-H575D935-X4F0-XX-UDD-F-W
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

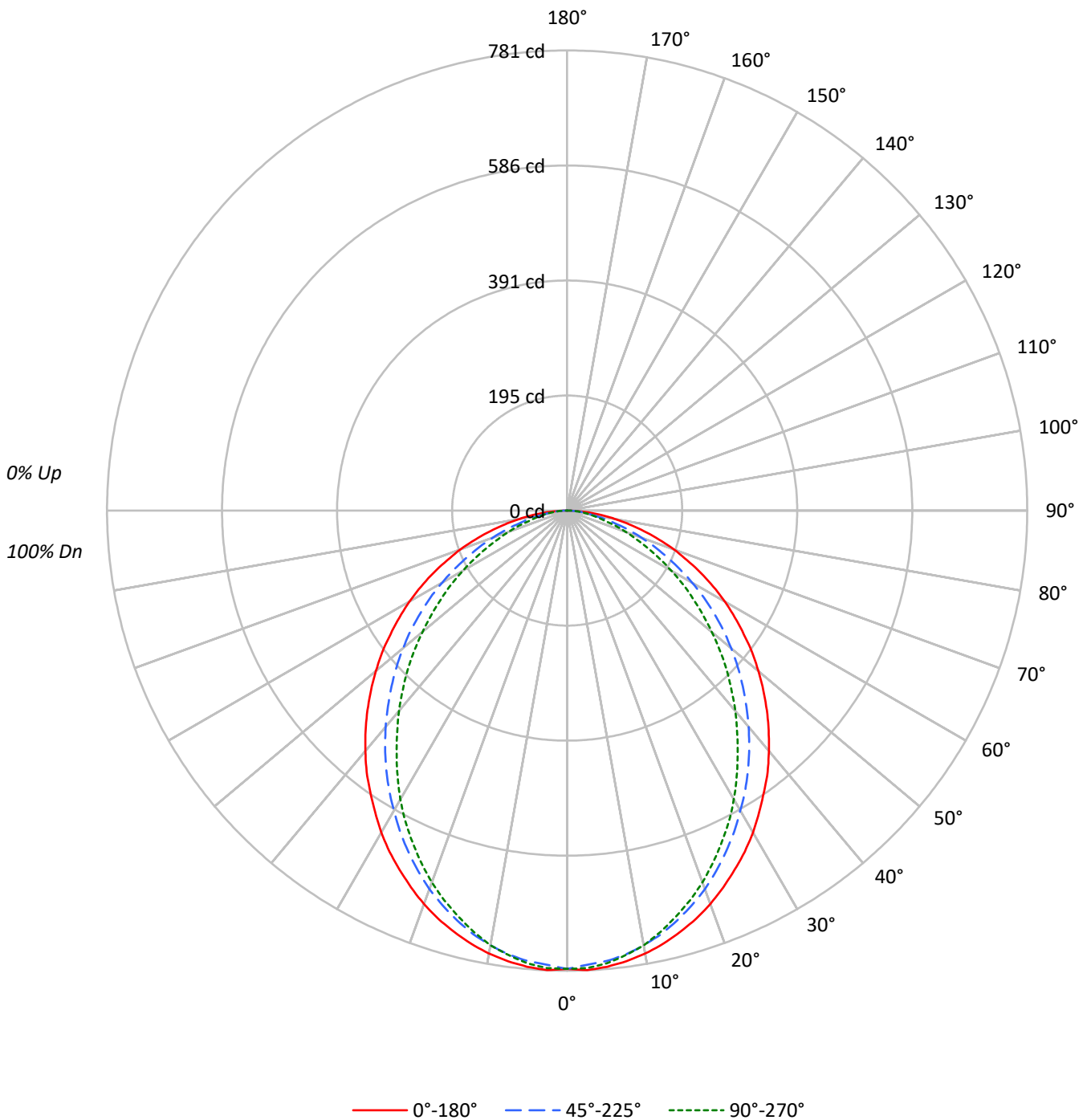
Lumens per Lamp: N/A
Luminaire Lumens: 1834.1 lumens
Efficiency: N/A
Efficacy: 106.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.1 / 1.25
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (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

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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	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°	6914	6914	6914
5°	6935	6848	6884
10°	6890	6761	6761
15°	6814	6629	6566
20°	6722	6466	6353
25°	6598	6260	6092
30°	6475	6033	5809
35°	6322	5812	5476
40°	6181	5562	5156
45°	6025	5296	4820
50°	5858	5024	4429
55°	5675	4714	4039
60°	5500	4357	3632
65°	5265	3935	3176
70°	5013	3475	2760
75°	4633	2899	2246
80°	4233	2263	2058
85°	3743	2162	2050

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6025 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.2	4.0
10°-20°	204.3	11.1
20°-30°	296.2	16.2
30°-40°	337.6	18.4
40°-50°	328.5	17.9
50°-60°	276.0	15.0
60°-70°	192.2	10.5
70°-80°	99.3	5.4
80°-90°	26.8	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°	573.6	31.3
0°-40°	911.3	49.7
0°-60°	1515.7	82.6
0°-90°	1834.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1834.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	778	778	778	778	778	
5°	777	775	768	773	772	74
15°	740	735	720	719	714	209
25°	673	660	638	629	621	310
35°	583	565	536	516	505	365
45°	479	456	421	394	383	370
55°	366	343	304	273	261	328
65°	250	226	187	160	151	248
75°	135	114	84	71	65	144
85°	37	24	21	20	20	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	777.8	777.8	777.8	777.8	777.8
2.5°	780.7	778.4	771.5	777.8	777.2
5°	777.2	774.9	767.5	773.2	771.5
7.5°	771.5	768.6	760.0	764.0	761.1
10°	763.4	760.6	749.1	752.0	749.1
12.5°	753.1	749.1	736.5	737.0	732.4
15°	740.5	734.7	720.4	719.2	713.5
17.5°	726.7	719.2	702.6	699.7	693.4
20°	710.6	701.4	683.6	677.3	671.6
22.5°	692.3	681.4	661.8	654.4	646.9
25°	672.7	660.1	638.3	629.1	621.1
27.5°	652.7	637.7	614.2	602.7	594.7
30°	630.8	613.6	587.8	574.6	566.0
32.5°	606.7	589.5	562.5	546.5	535.6
35°	582.6	564.8	535.6	515.5	504.6
37.5°	559.1	539.0	507.4	486.8	474.1
40°	532.7	511.4	479.3	455.8	444.3
42.5°	506.3	484.5	450.0	425.3	412.7
45°	479.3	456.3	421.3	394.3	383.4
47.5°	451.7	428.8	392.6	364.5	351.9
50°	423.6	400.7	363.3	332.4	320.3
52.5°	396.1	372.0	334.6	303.1	290.5
55°	366.2	342.7	304.2	273.2	260.6
57.5°	337.5	312.8	275.5	244.0	233.6
60°	309.4	284.7	245.1	214.7	204.3
62.5°	279.5	254.9	215.8	186.6	177.4
65°	250.3	226.2	187.1	160.1	151.0
67.5°	220.4	198.6	160.7	134.9	127.4
70°	192.9	168.2	133.7	111.4	106.2
72.5°	163.6	141.8	108.5	90.1	86.1
75°	134.9	114.2	84.4	70.6	65.4
77.5°	108.5	88.4	63.7	52.2	52.2
80°	82.7	64.9	44.2	41.3	40.2
82.5°	58.5	41.9	32.7	30.4	29.8
85°	36.7	23.5	21.2	20.1	20.1
87.5°	17.8	10.9	10.9	10.3	10.3
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	18.17	19.74	18.53	20.06	20.37	16.27	17.85	16.64	18.16	18.48
	3H	19.98	21.40	20.36	21.73	22.09	17.54	18.95	17.91	19.28	19.64
	4H	20.67	22.00	21.07	22.35	22.73	17.93	19.26	18.33	19.61	19.99
	6H	21.18	22.42	21.59	22.78	23.17	18.21	19.44	18.62	19.81	20.20
	8H	21.35	22.53	21.78	22.92	23.32	18.31	19.49	18.74	19.88	20.28
	12H	21.47	22.60	21.90	22.98	23.41	18.39	19.52	18.82	19.90	20.33
4H	2H	18.52	19.85	18.92	20.20	20.58	16.97	18.31	17.37	18.66	19.03
	3H	20.54	21.65	20.95	22.05	22.45	18.43	19.54	18.84	19.94	20.34
	4H	21.35	22.35	21.78	22.77	23.20	18.90	19.91	19.34	20.32	20.76
	6H	21.99	22.86	22.45	23.31	23.76	19.27	20.14	19.72	20.58	21.04
	8H	22.21	23.02	22.67	23.47	23.93	19.41	20.22	19.87	20.66	21.13
	12H	22.37	23.10	22.85	23.58	24.05	19.52	20.25	20.00	20.73	21.20
8H	4H	21.45	22.27	21.92	22.71	23.18	19.24	20.05	19.70	20.50	20.96
	6H	22.18	22.86	22.68	23.35	23.82	19.69	20.36	20.18	20.85	21.33
	8H	22.45	23.06	22.96	23.57	24.06	19.88	20.49	20.39	21.00	21.48
	12H	22.68	23.22	23.19	23.71	24.27	20.06	20.60	20.57	21.09	21.66
12H	4H	21.45	22.18	21.93	22.66	23.13	19.28	20.01	19.76	20.49	20.96
	6H	22.17	22.78	22.68	23.29	23.78	19.75	20.36	20.26	20.87	21.35
	8H	22.49	23.03	23.00	23.52	24.08	20.00	20.53	20.50	21.02	21.59