

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: P242717

Luminaire Tested: S124RDRP-S575D930-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242717
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S575D930-X4F0-XX-UDD-F-W
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

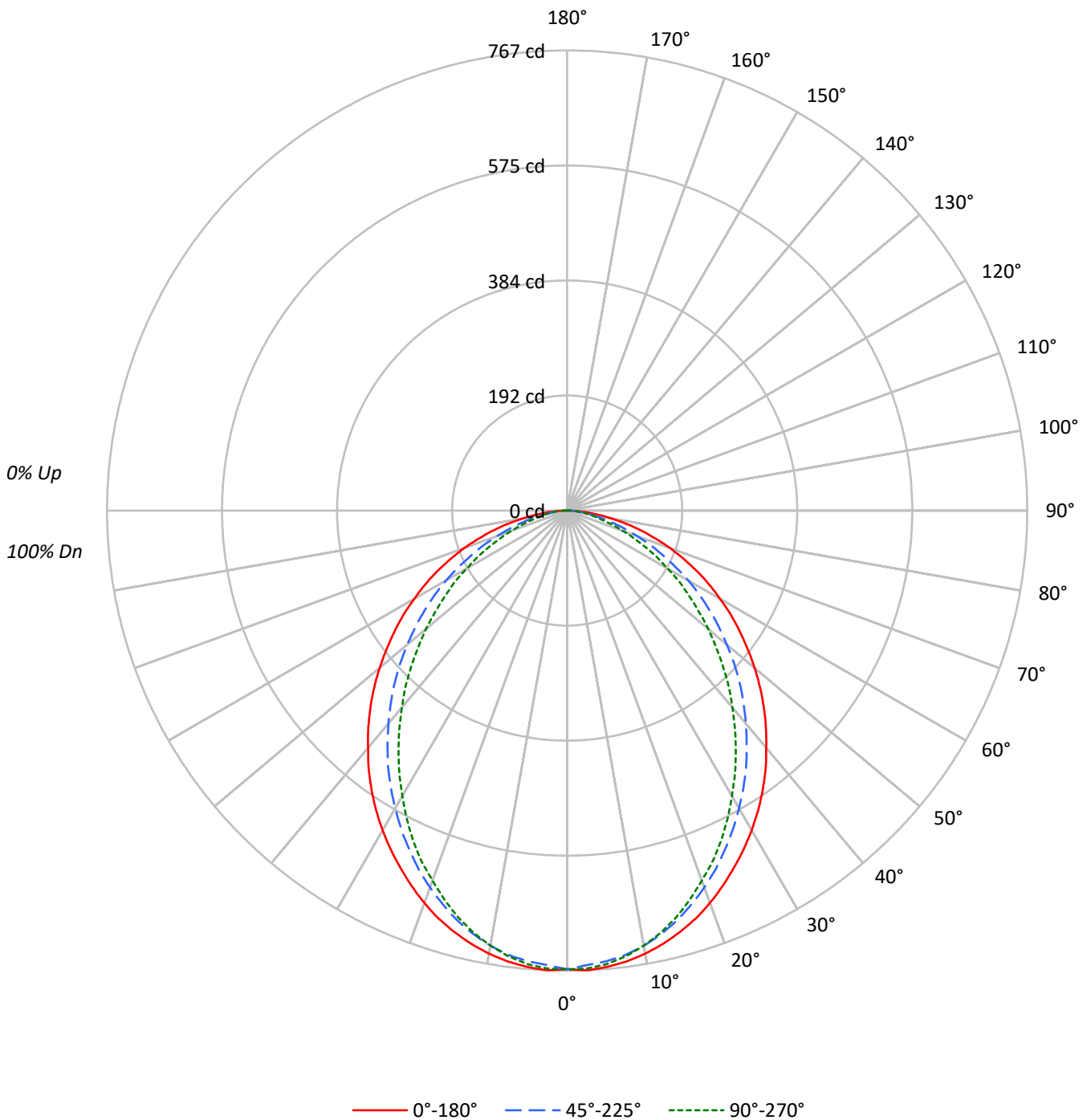
Lumens per Lamp: N/A
Luminaire Lumens: 1766.6 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 18.8
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

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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	74	72
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56	54
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	47
6	72	59	51	45	70	58	50	44	57	49	44	55	49	44	53	48	43	41
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	37
8	63	50	41	36	61	49	41	36	48	40	35	46	40	35	45	39	35	33
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30
10	55	42	35	29	54	42	34	29	41	34	29	40	33	29	39	33	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6796	6796	6796
5°	6812	6728	6770
10°	6769	6647	6647
15°	6691	6508	6459
20°	6584	6324	6207
25°	6448	6109	5954
30°	6315	5882	5636
35°	6168	5647	5317
40°	5991	5379	4972
45°	5828	5115	4621
50°	5642	4808	4250
55°	5443	4491	3846
60°	5225	4142	3435
65°	5023	3706	3029
70°	4733	3225	2570
75°	4362	2675	2092
80°	3803	2037	1920
85°	3223	1846	1734

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5828 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.9	4.1
10°-20°	200.4	11.3
20°-30°	289.4	16.4
30°-40°	328.0	18.6
40°-50°	316.7	17.9
50°-60°	263.3	14.9
60°-70°	181.7	10.3
70°-80°	91.8	5.2
80°-90°	23.3	1.3
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°	561.7	31.8
0°-40°	889.7	50.4
0°-60°	1469.7	83.2
0°-90°	1766.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1766.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	764	764	764	764	764	
5°	763	761	754	760	759	72
15°	727	722	707	706	702	205
25°	657	647	623	613	607	303
35°	568	550	520	500	490	355
45°	464	442	407	378	368	358
55°	351	328	290	259	248	314
65°	239	214	176	151	144	236
75°	127	105	78	64	61	134
85°	32	20	18	17	17	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	764.5	764.5	764.5	764.5	764.5
2.5°	766.9	764.5	758.1	764.5	764.0
5°	763.4	761.0	754.0	759.9	758.7
7.5°	758.1	755.8	747.0	751.1	749.3
10°	749.9	747.0	736.4	738.8	736.4
12.5°	739.4	735.9	723.0	724.1	720.6
15°	727.1	721.8	707.2	706.0	701.9
17.5°	713.0	705.4	688.4	685.5	679.7
20°	696.0	688.4	668.5	663.9	656.2
22.5°	677.3	668.5	646.9	639.3	633.4
25°	657.4	646.9	622.9	612.9	607.1
27.5°	636.9	624.0	598.9	587.2	579.0
30°	615.3	600.6	573.1	558.5	549.1
32.5°	592.4	575.5	546.8	529.2	520.4
35°	568.4	549.7	520.4	500.5	490.0
37.5°	543.3	523.9	491.7	470.1	459.5
40°	516.3	497.0	463.6	439.1	428.5
42.5°	490.6	470.1	435.0	409.8	398.7
45°	463.6	442.0	406.9	378.2	367.6
47.5°	436.1	413.9	377.6	347.7	336.0
50°	408.0	385.2	347.7	318.5	307.3
52.5°	379.3	357.1	318.5	288.6	276.9
55°	351.2	327.8	289.8	259.3	248.2
57.5°	323.7	299.1	261.7	230.6	222.5
60°	293.9	270.5	233.0	202.6	193.2
62.5°	266.9	242.4	203.7	176.2	169.2
65°	238.8	213.7	176.2	151.0	144.0
67.5°	209.6	185.6	150.4	128.2	120.0
70°	182.1	157.5	124.1	104.8	98.9
72.5°	152.8	131.1	100.1	84.3	79.0
75°	127.0	105.4	77.9	64.4	60.9
77.5°	100.1	81.4	58.0	48.6	47.4
80°	74.3	57.4	39.8	38.1	37.5
82.5°	52.1	36.9	28.7	27.5	26.9
85°	31.6	19.9	18.1	17.0	17.0
87.5°	13.5	8.8	8.2	7.6	8.2
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	18.00	19.57	18.36	19.88	20.19	16.03	17.60	16.40	17.91	18.23
	3H	19.77	21.18	20.15	21.51	21.87	17.28	18.69	17.66	19.02	19.38
	4H	20.43	21.76	20.83	22.10	22.48	17.66	18.98	18.06	19.33	19.71
	6H	20.91	22.13	21.32	22.50	22.89	17.92	19.15	18.33	19.51	19.90
	8H	21.06	22.22	21.48	22.61	23.01	18.02	19.18	18.44	19.57	19.97
	12H	21.16	22.27	21.59	22.65	23.08	18.08	19.20	18.51	19.58	20.01
4H	2H	18.34	19.66	18.74	20.01	20.39	16.73	18.05	17.12	18.40	18.77
	3H	20.30	21.41	20.71	21.81	22.21	18.16	19.26	18.57	19.66	20.06
	4H	21.09	22.08	21.52	22.49	22.93	18.61	19.61	19.05	20.02	20.46
	6H	21.68	22.55	22.14	22.99	23.45	18.96	19.83	19.42	20.27	20.73
	8H	21.88	22.68	22.34	23.13	23.59	19.09	19.90	19.55	20.34	20.81
	12H	22.02	22.74	22.50	23.22	23.69	19.19	19.91	19.67	20.39	20.86
8H	4H	21.18	21.99	21.64	22.43	22.90	18.93	19.74	19.39	20.18	20.65
	6H	21.85	22.52	22.35	23.01	23.49	19.36	20.03	19.86	20.52	21.00
	8H	22.09	22.69	22.61	23.20	23.69	19.54	20.14	20.05	20.65	21.14
	12H	22.29	22.82	22.80	23.31	23.88	19.70	20.23	20.20	20.72	21.28
12H	4H	21.17	21.90	21.65	22.37	22.84	18.97	19.69	19.45	20.17	20.64
	6H	21.84	22.44	22.35	22.95	23.44	19.41	20.01	19.92	20.52	21.01
	8H	22.12	22.65	22.63	23.15	23.71	19.64	20.17	20.15	20.66	21.23