

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: P243215

Luminaire Tested: S122RDRP-H675D927-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243215
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-63)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-H675D927-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

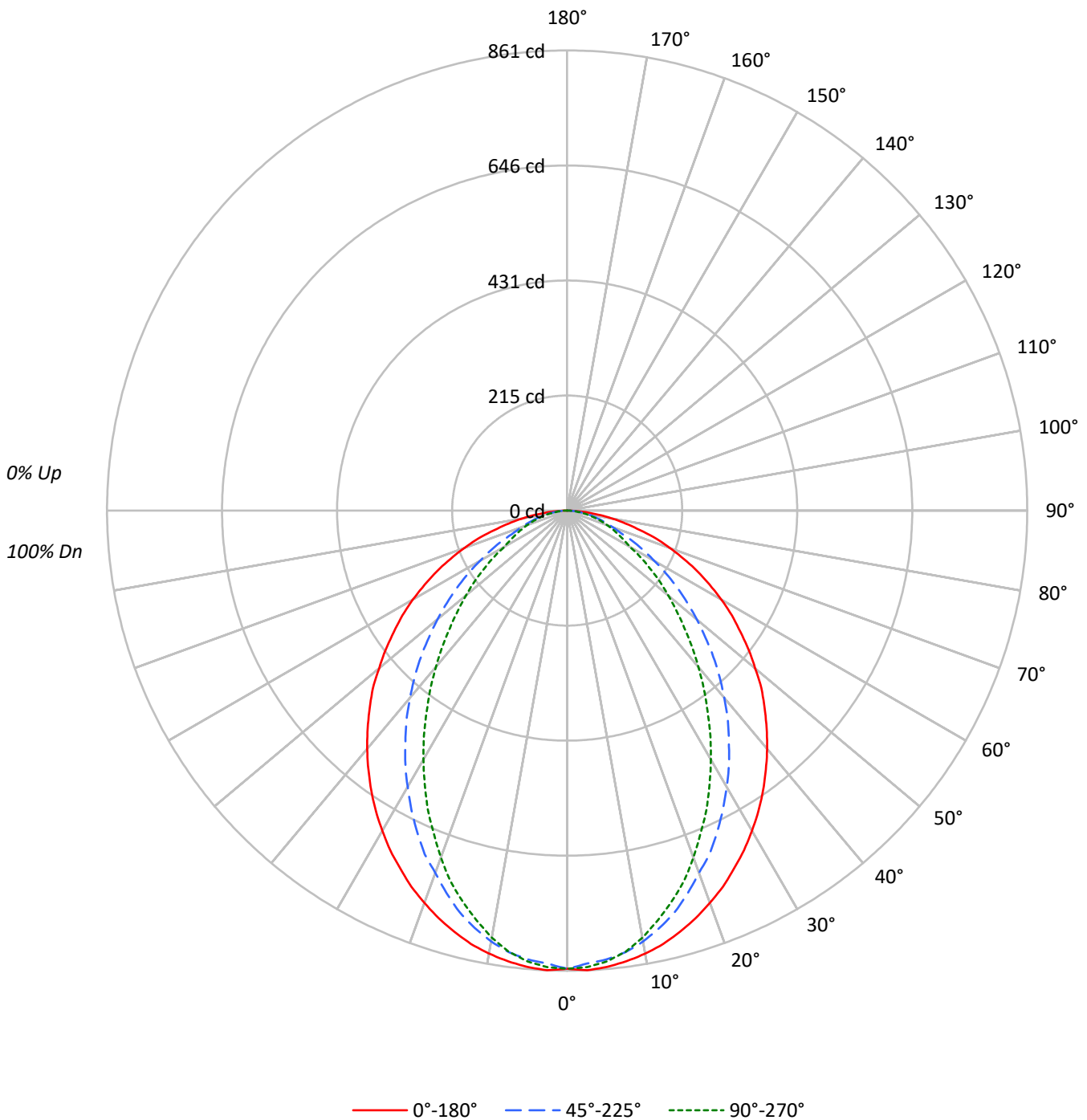
Lumens per Lamp: N/A
Luminaire Lumens: 1758.1 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 23.6
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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	94	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76	74					74			
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	64					64			
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57	55					55			
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49					49			
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43					43			
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39					39			
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	35					35			
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34	32					32			
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29					29			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16328	16328	16328
5°	16390	16122	16193
10°	16280	15837	15694
15°	16087	15344	14922
20°	15833	14619	14003
25°	15529	13959	12965
30°	15211	13128	11826
35°	14861	12264	10645
40°	14474	11366	9491
45°	14067	10419	8348
50°	13610	9382	7319
55°	13141	8352	6313
60°	12709	7185	5158
65°	12133	6067	4768
70°	11411	5023	4450
75°	10399	4570	4085
80°	9335	4059	3653
85°	7758	3387	3235

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14067 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.3	4.6
10°-20°	220.1	12.5
20°-30°	308.7	17.6
30°-40°	336.2	19.1
40°-50°	309.1	17.6
50°-60°	242.5	13.8
60°-70°	158.2	9.0
70°-80°	81.8	4.7
80°-90°	21.2	1.2
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°	609.0	34.6
0°-40°	945.3	53.8
0°-60°	1496.9	85.1
0°-90°	1758.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1758.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	857	857	857	857	857	
5°	857	853	843	849	847	81
15°	816	806	778	763	757	230
25°	739	713	664	632	617	341
35°	639	597	527	478	458	400
45°	522	469	387	331	310	403
55°	396	336	252	204	190	355
65°	269	204	135	110	106	266
75°	141	88	62	57	56	151
85°	36	17	16	15	15	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	857.2	857.2	857.2	857.2	857.2
2.5°	860.9	857.2	848.4	856.5	855.0
5°	857.2	852.8	843.2	849.1	846.9
7.5°	850.6	846.2	833.6	836.5	832.8
10°	841.7	835.8	818.8	815.8	811.4
12.5°	830.6	822.5	799.6	790.7	784.8
15°	815.8	806.2	778.1	762.6	756.7
17.5°	799.6	785.5	750.7	733.0	727.1
20°	781.1	764.8	721.2	702.7	690.8
22.5°	761.8	741.1	696.0	667.2	653.1
25°	738.9	713.0	664.2	631.7	616.9
27.5°	716.7	686.4	630.9	593.2	576.9
30°	691.6	658.3	596.9	553.3	537.7
32.5°	666.4	628.0	563.6	516.3	498.5
35°	639.1	596.9	527.4	478.5	457.8
37.5°	610.9	567.3	494.1	440.1	420.1
40°	582.1	533.3	457.1	400.9	381.7
42.5°	552.5	503.0	422.3	364.6	346.2
45°	522.2	468.9	386.8	330.6	309.9
47.5°	493.3	435.7	350.6	297.3	277.4
50°	459.3	402.4	316.6	262.6	247.0
52.5°	428.3	369.1	283.3	231.5	218.2
55°	395.7	336.5	251.5	204.1	190.1
57.5°	365.4	302.5	219.7	176.8	163.5
60°	333.6	270.0	188.6	149.4	135.4
62.5°	300.3	236.7	161.2	124.3	119.8
65°	269.2	204.1	134.6	109.5	105.8
67.5°	235.9	173.8	107.2	96.2	92.5
70°	204.9	144.2	90.2	82.1	79.9
72.5°	174.6	116.1	76.2	69.5	67.3
75°	141.3	88.0	62.1	57.0	55.5
77.5°	112.4	62.1	49.6	45.9	44.4
80°	85.1	45.1	37.0	34.8	33.3
82.5°	58.4	30.3	25.9	24.4	23.7
85°	35.5	17.0	15.5	14.8	14.8
87.5°	14.1	6.7	6.7	5.9	5.9
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	20.95	22.47	21.31	22.79	23.10	16.84	18.36	17.20	18.67	18.99
	3H	22.72	24.08	23.09	24.41	24.77	18.13	19.50	18.51	19.82	20.19
	4H	23.38	24.66	23.78	25.01	25.39	18.64	19.92	19.04	20.27	20.65
	6H	23.87	25.05	24.28	25.42	25.81	19.02	20.20	19.43	20.57	20.96
	8H	24.03	25.16	24.46	25.55	25.95	19.14	20.27	19.57	20.66	21.06
	12H	24.14	25.22	24.57	25.60	26.03	19.23	20.30	19.66	20.69	21.12
4H	2H	21.05	22.33	21.45	22.68	23.06	17.54	18.82	17.94	19.17	19.55
	3H	22.99	24.05	23.40	24.45	24.85	19.01	20.08	19.43	20.48	20.88
	4H	23.73	24.69	24.17	25.11	25.54	19.62	20.58	20.05	20.99	21.43
	6H	24.32	25.16	24.78	25.60	26.06	20.11	20.95	20.57	21.39	21.85
	8H	24.54	25.32	25.00	25.76	26.23	20.28	21.05	20.74	21.50	21.96
	12H	24.70	25.40	25.18	25.87	26.34	20.39	21.09	20.88	21.57	22.04
8H	4H	23.76	24.54	24.22	24.98	25.45	19.98	20.76	20.45	21.21	21.67
	6H	24.40	25.04	24.89	25.53	26.01	20.58	21.22	21.07	21.71	22.19
	8H	24.64	25.22	25.16	25.73	26.22	20.80	21.38	21.31	21.89	22.37
	12H	24.86	25.37	25.37	25.86	26.43	20.98	21.49	21.49	21.98	22.55
12H	4H	23.74	24.44	24.23	24.92	25.39	20.03	20.72	20.51	21.20	21.67
	6H	24.38	24.95	24.89	25.46	25.95	20.64	21.22	21.15	21.73	22.22
	8H	24.66	25.17	25.17	25.66	26.23	20.92	21.43	21.43	21.92	22.48