

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: P243234

Luminaire Tested: S122RDRP-H675D930-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243234
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-H675D930-X4F0-XX-UDD-F-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

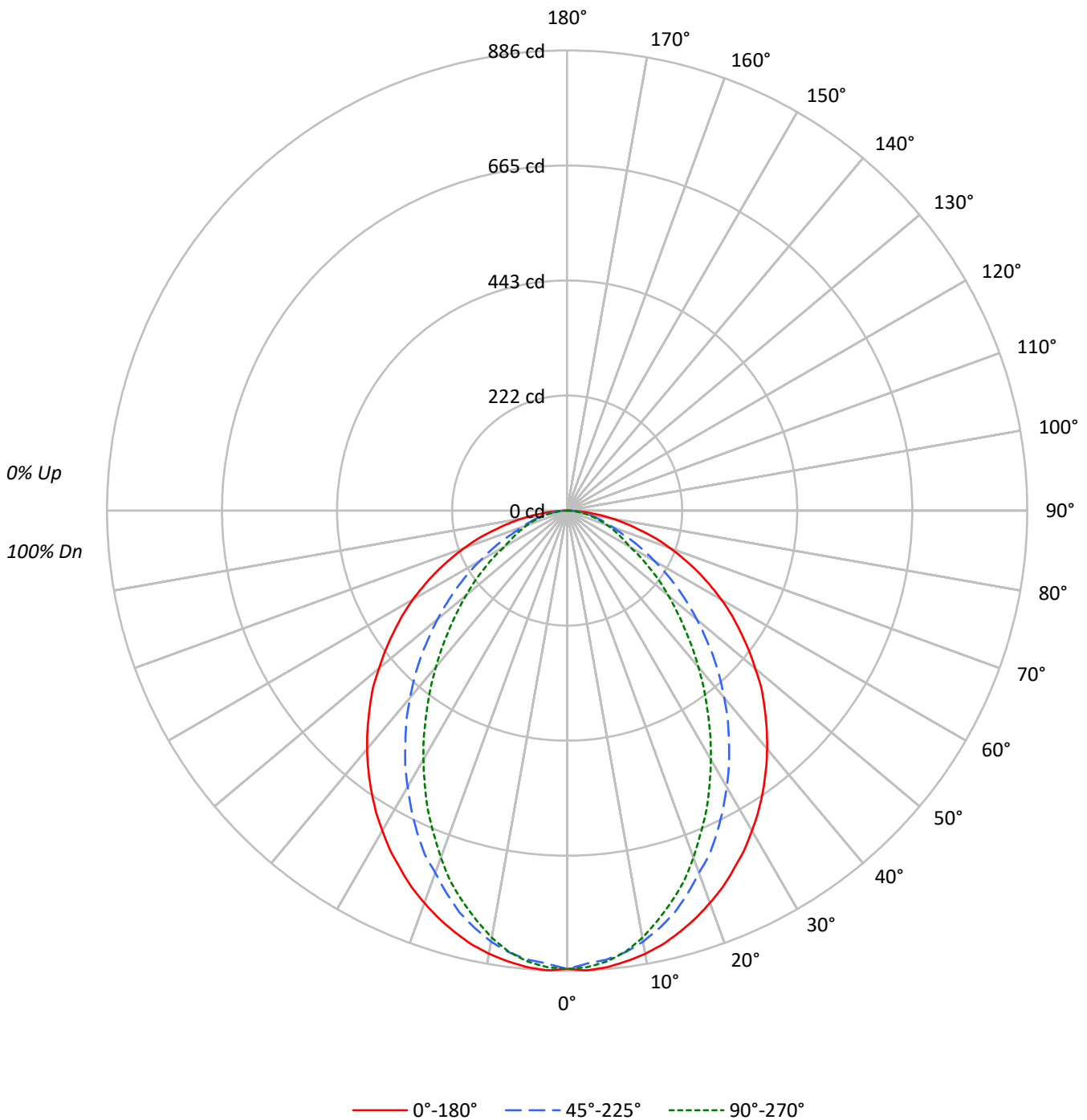
Lumens per Lamp: N/A
Luminaire Lumens: 1809.4 lumens
Efficiency: N/A
Efficacy: 76.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

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				
2	101	94	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76					74				
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66					64				
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57					55				
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51					49				
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45					43				
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41					39				
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37					35				
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34					32				
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31					29				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16806	16806	16806
5°	16870	16593	16665
10°	16756	16299	16152
15°	16557	15791	15356
20°	16295	15045	14412
25°	15983	14367	13344
30°	15653	13511	12172
35°	15293	12622	10957
40°	14897	11697	9767
45°	14476	10724	8593
50°	14008	9654	7536
55°	13526	8594	6496
60°	13078	7394	5307
65°	12489	6242	4908
70°	11745	5174	4578
75°	10701	4703	4202
80°	9598	4179	3762
85°	7977	3497	3322

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14476 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.6	4.6
10°-20°	226.5	12.5
20°-30°	317.7	17.6
30°-40°	346.1	19.1
40°-50°	318.1	17.6
50°-60°	249.6	13.8
60°-70°	162.8	9.0
70°-80°	84.2	4.7
80°-90°	21.8	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°	626.8	34.6
0°-40°	972.9	53.8
0°-60°	1540.6	85.1
0°-90°	1809.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1809.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	882	882	882	882	882	
5°	882	878	868	874	872	84
15°	840	830	801	785	779	237
25°	760	734	684	650	635	351
35°	658	614	543	492	471	411
45°	537	483	398	340	319	415
55°	407	346	259	210	196	365
65°	277	210	138	113	109	274
75°	145	91	64	59	57	156
85°	36	18	16	15	15	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	882.3	882.3	882.3	882.3	882.3
2.5°	886.1	882.3	873.1	881.5	880.0
5°	882.3	877.7	867.8	873.9	871.6
7.5°	875.4	870.8	857.9	860.9	857.1
10°	866.3	860.2	842.7	839.6	835.1
12.5°	854.9	846.5	822.9	813.8	807.7
15°	839.6	829.7	800.8	784.8	778.7
17.5°	822.9	808.4	772.6	754.4	748.3
20°	803.9	787.1	742.2	723.2	711.0
22.5°	784.1	762.8	716.3	686.6	672.2
25°	760.5	733.8	683.6	650.1	634.9
27.5°	737.6	706.4	649.3	610.5	593.8
30°	711.7	677.5	614.3	569.4	553.4
32.5°	685.9	646.3	580.1	531.3	513.1
35°	657.7	614.3	542.8	492.5	471.2
37.5°	628.8	583.9	508.5	452.9	432.4
40°	599.1	548.8	470.4	412.6	392.8
42.5°	568.6	517.6	434.7	375.3	356.3
45°	537.4	482.6	398.1	340.3	319.0
47.5°	507.7	448.4	360.8	306.0	285.5
50°	472.7	414.1	325.8	270.2	254.3
52.5°	440.8	379.9	291.6	238.3	224.6
55°	407.3	346.4	258.8	210.1	195.6
57.5°	376.0	311.3	226.1	181.9	168.2
60°	343.3	277.8	194.1	153.8	139.3
62.5°	309.1	243.6	165.9	127.9	123.3
65°	277.1	210.1	138.5	112.7	108.9
67.5°	242.8	178.9	110.4	99.0	95.2
70°	210.9	148.4	92.9	84.5	82.2
72.5°	179.6	119.5	78.4	71.6	69.3
75°	145.4	90.6	63.9	58.6	57.1
77.5°	115.7	63.9	51.0	47.2	45.7
80°	87.5	46.4	38.1	35.8	34.3
82.5°	60.1	31.2	26.6	25.1	24.4
85°	36.5	17.5	16.0	15.2	15.2
87.5°	14.5	6.9	6.9	6.1	6.1
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	21.05	22.57	21.41	22.88	23.20	16.93	18.46	17.30	18.77	19.08
	3H	22.82	24.18	23.19	24.51	24.87	18.23	19.60	18.61	19.92	20.28
	4H	23.48	24.76	23.88	25.11	25.49	18.74	20.02	19.14	20.37	20.74
	6H	23.97	25.15	24.38	25.52	25.91	19.12	20.30	19.53	20.67	21.06
	8H	24.13	25.26	24.56	25.65	26.05	19.24	20.37	19.67	20.76	21.16
	12H	24.24	25.32	24.67	25.70	26.13	19.32	20.40	19.75	20.79	21.21
4H	2H	21.15	22.43	21.55	22.78	23.16	17.64	18.92	18.04	19.27	19.65
	3H	23.09	24.15	23.50	24.55	24.95	19.11	20.18	19.52	20.58	20.98
	4H	23.83	24.79	24.27	25.21	25.64	19.72	20.68	20.15	21.09	21.53
	6H	24.42	25.26	24.88	25.70	26.16	20.21	21.05	20.67	21.49	21.95
	8H	24.64	25.42	25.10	25.86	26.33	20.37	21.15	20.84	21.60	22.06
	12H	24.80	25.49	25.28	25.97	26.44	20.49	21.19	20.97	21.67	22.14
8H	4H	23.86	24.64	24.32	25.08	25.55	20.08	20.86	20.54	21.30	21.77
	6H	24.49	25.14	24.99	25.63	26.11	20.68	21.32	21.17	21.81	22.29
	8H	24.74	25.32	25.26	25.83	26.32	20.90	21.47	21.41	21.98	22.47
	12H	24.96	25.47	25.47	25.96	26.53	21.08	21.59	21.59	22.08	22.64
12H	4H	23.84	24.54	24.32	25.02	25.49	20.12	20.82	20.61	21.30	21.77
	6H	24.48	25.05	24.99	25.56	26.05	20.74	21.32	21.25	21.83	22.31
	8H	24.76	25.27	25.27	25.76	26.33	21.02	21.53	21.52	22.02	22.58