

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: P243113

Luminaire Tested: S122DRP-H865D927-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243113
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-48)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DRP-H865D927-X4F0-XX-UDD-F-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

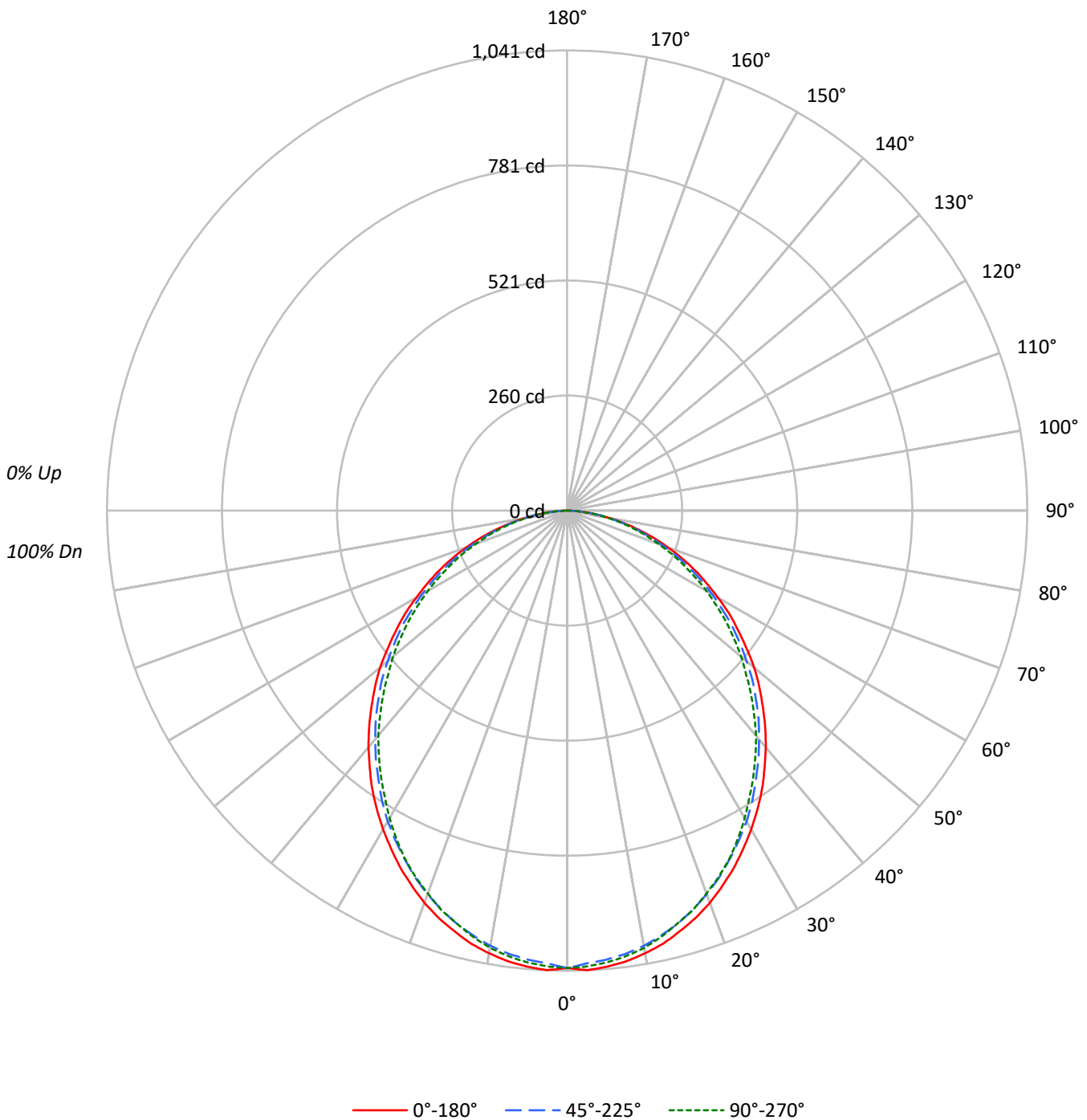
Lumens per Lamp: N/A
Luminaire Lumens: 2633.5 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84					84			
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71					71			
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60					60			
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51					51			
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45					45			
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39					39			
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	31					31			
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19712	19712	19712
5°	19807	19497	19625
10°	19666	19336	19427
15°	19430	19073	19055
20°	19141	18715	18677
25°	18745	18283	18264
30°	18315	17853	17666
35°	17877	17300	17079
40°	17386	16791	16530
45°	16855	16265	15853
50°	16366	15714	15234
55°	15681	15140	14572
60°	15006	14427	13882
65°	14360	13670	13071
70°	13494	12804	12163
75°	12283	11790	11231
80°	10673	10355	9938
85°	9179	8130	7496

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16855 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.4	3.7
10°-20°	274.3	10.4
20°-30°	403.3	15.3
30°-40°	468.3	17.8
40°-50°	467.6	17.8
50°-60°	407.3	15.5
60°-70°	301.2	11.4
70°-80°	169.8	6.4
80°-90°	44.3	1.7
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°	775.0	29.4
0°-40°	1243.3	47.2
0°-60°	2118.2	80.4
0°-90°	2633.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2633.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1035	1035	1035	1035	1035	
5°	1036	1031	1020	1028	1026	98
15°	985	981	967	971	966	278
25°	892	884	870	869	869	411
35°	769	760	744	737	734	480
45°	626	619	604	594	588	483
55°	472	468	456	444	439	423
65°	319	314	303	294	290	315
75°	167	166	160	154	153	178
85°	42	40	37	35	34	48
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1034.9	1034.9	1034.9	1034.9	1034.9
2.5°	1040.7	1035.9	1025.4	1034.0	1032.1
5°	1035.9	1031.1	1019.7	1028.3	1026.4
7.5°	1028.3	1023.5	1011.1	1019.7	1016.8
10°	1016.8	1011.1	999.7	1005.4	1004.4
12.5°	1003.5	997.7	984.4	989.2	987.3
15°	985.3	980.6	967.2	971.0	966.3
17.5°	966.3	958.6	946.2	950.1	947.2
20°	944.3	936.7	923.3	925.3	921.4
22.5°	918.6	910.9	898.5	898.5	896.6
25°	891.9	884.2	869.9	869.0	869.0
27.5°	862.3	855.6	841.3	838.4	836.5
30°	832.7	827.0	811.7	806.0	803.2
32.5°	801.2	793.6	779.3	772.6	767.9
35°	768.8	760.2	744.0	737.3	734.5
37.5°	733.5	724.9	710.6	704.9	699.2
40°	699.2	691.6	675.3	666.8	664.8
42.5°	662.9	655.3	641.0	631.5	625.7
45°	625.7	619.1	603.8	594.3	588.5
47.5°	589.5	581.9	568.5	557.1	549.4
50°	552.3	544.7	530.3	517.0	514.1
52.5°	511.3	506.5	492.2	479.8	476.0
55°	472.2	468.3	455.9	443.5	438.8
57.5°	435.0	430.2	415.9	406.3	400.6
60°	393.9	391.1	378.7	368.2	364.4
62.5°	355.8	352.0	341.5	331.0	326.2
65°	318.6	313.8	303.3	293.8	290.0
67.5°	280.4	275.7	267.1	259.5	255.6
70°	242.3	238.5	229.9	223.2	218.4
72.5°	205.1	201.3	193.6	187.0	186.0
75°	166.9	166.0	160.2	154.5	152.6
77.5°	131.6	130.7	126.9	124.0	122.1
80°	97.3	97.3	94.4	91.6	90.6
82.5°	66.8	67.7	64.9	63.0	63.0
85°	42.0	40.1	37.2	35.3	34.3
87.5°	17.2	14.3	13.4	10.5	9.5
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	21.64	23.25	22.01	23.57	23.88	21.21	22.82	21.58	23.14	23.45
	3H	23.40	24.85	23.77	25.18	25.54	22.91	24.37	23.29	24.69	25.06
	4H	24.04	25.41	24.44	25.76	26.13	23.54	24.91	23.94	25.26	25.63
	6H	24.50	25.77	24.91	26.13	26.52	24.00	25.27	24.41	25.63	26.02
	8H	24.64	25.85	25.06	26.24	26.64	24.14	25.35	24.57	25.74	26.14
	12H	24.73	25.89	25.16	26.27	26.70	24.22	25.38	24.65	25.76	26.19
4H	2H	22.20	23.57	22.60	23.92	24.29	21.86	23.23	22.26	23.58	23.95
	3H	24.18	25.32	24.59	25.72	26.12	23.78	24.92	24.19	25.32	25.72
	4H	24.96	25.99	25.39	26.41	26.84	24.52	25.56	24.96	25.97	26.41
	6H	25.54	26.45	26.00	26.89	27.34	25.11	26.01	25.56	26.45	26.91
	8H	25.73	26.57	26.19	27.02	27.48	25.29	26.14	25.75	26.58	27.04
	12H	25.86	26.62	26.34	27.10	27.57	25.41	26.17	25.89	26.64	27.11
8H	4H	25.23	26.07	25.69	26.52	26.98	24.85	25.69	25.31	26.13	26.60
	6H	25.93	26.63	26.42	27.12	27.60	25.54	26.24	26.04	26.73	27.21
	8H	26.18	26.81	26.69	27.32	27.81	25.79	26.42	26.30	26.93	27.41
	12H	26.39	26.95	26.90	27.44	28.00	25.97	26.53	26.48	27.02	27.58
12H	4H	25.25	26.01	25.73	26.49	26.96	24.88	25.64	25.36	26.12	26.58
	6H	25.97	26.60	26.48	27.11	27.60	25.60	26.23	26.11	26.74	27.22
	8H	26.28	26.84	26.79	27.33	27.89	25.90	26.46	26.41	26.95	27.51