

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: P243137

Luminaire Tested: S122DRP-H865D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243137
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-H865D935-X4F0-XX-UDD-F-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

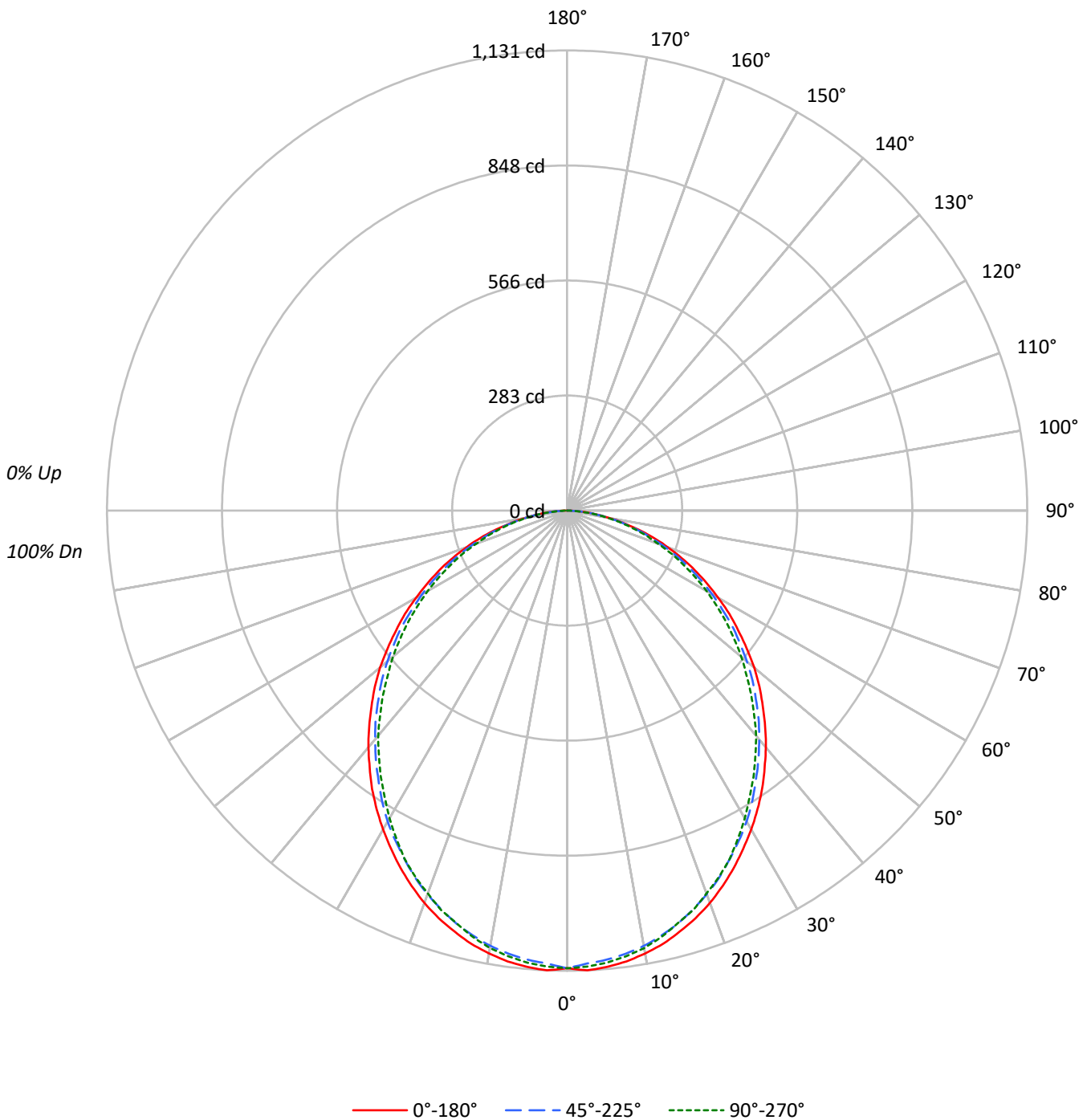
Lumens per Lamp: N/A
Luminaire Lumens: 2862.3 lumens
Efficiency: N/A
Efficacy: 90.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21427	21427	21427
5°	21528	21191	21329
10°	21376	21015	21115
15°	21118	20729	20710
20°	20805	20343	20301
25°	20372	19871	19850
30°	19907	19406	19199
35°	19430	18802	18563
40°	18895	18251	17967
45°	18320	17679	17232
50°	17789	17080	16559
55°	17043	16458	15837
60°	16312	15680	15086
65°	15608	14860	14206
70°	14664	13917	13221
75°	13350	12820	12209
80°	11594	11254	10805
85°	9966	8829	8152

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 18320 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.9	3.7
10°-20°	298.1	10.4
20°-30°	438.3	15.3
30°-40°	509.0	17.8
40°-50°	508.3	17.8
50°-60°	442.7	15.5
60°-70°	327.4	11.4
70°-80°	184.6	6.4
80°-90°	48.1	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°	842.4	29.4
0°-40°	1351.3	47.2
0°-60°	2302.3	80.4
0°-90°	2862.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2862.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1125	1125	1125	1125	1125	
5°	1126	1121	1108	1118	1116	107
15°	1071	1066	1051	1055	1050	302
25°	969	961	946	944	944	446
35°	836	826	809	801	798	522
45°	680	673	656	646	640	525
55°	513	509	496	482	477	460
65°	346	341	330	319	315	342
75°	181	180	174	168	166	193
85°	46	44	40	38	37	52
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1124.9	1124.9	1124.9	1124.9	1124.9
2.5°	1131.1	1125.9	1114.5	1123.8	1121.7
5°	1125.9	1120.7	1108.3	1117.6	1115.5
7.5°	1117.6	1112.4	1098.9	1108.3	1105.2
10°	1105.2	1098.9	1086.5	1092.7	1091.7
12.5°	1090.6	1084.4	1069.9	1075.1	1073.0
15°	1070.9	1065.8	1051.2	1055.4	1050.2
17.5°	1050.2	1041.9	1028.4	1032.6	1029.5
20°	1026.4	1018.1	1003.6	1005.6	1001.5
22.5°	998.4	990.1	976.6	976.6	974.5
25°	969.3	961.0	945.5	944.5	944.5
27.5°	937.2	929.9	914.4	911.3	909.2
30°	905.1	898.8	882.3	876.0	872.9
32.5°	870.9	862.6	847.0	839.8	834.6
35°	835.6	826.3	808.6	801.4	798.3
37.5°	797.2	787.9	772.4	766.1	759.9
40°	759.9	751.6	734.0	724.7	722.6
42.5°	720.5	712.2	696.7	686.3	680.1
45°	680.1	672.8	656.3	645.9	639.7
47.5°	640.7	632.4	617.9	605.5	597.2
50°	600.3	592.0	576.4	561.9	558.8
52.5°	555.7	550.5	535.0	521.5	517.3
55°	513.2	509.0	495.6	482.1	476.9
57.5°	472.7	467.6	452.0	441.6	435.4
60°	428.2	425.1	411.6	400.2	396.0
62.5°	386.7	382.6	371.1	359.7	354.6
65°	346.3	341.1	329.7	319.3	315.2
67.5°	304.8	299.6	290.3	282.0	277.8
70°	263.3	259.2	249.9	242.6	237.4
72.5°	222.9	218.8	210.5	203.2	202.2
75°	181.4	180.4	174.2	168.0	165.9
77.5°	143.1	142.0	137.9	134.8	132.7
80°	105.7	105.7	102.6	99.5	98.5
82.5°	72.6	73.6	70.5	68.4	68.4
85°	45.6	43.5	40.4	38.4	37.3
87.5°	18.7	15.6	14.5	11.4	10.4
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	21.93	23.54	22.30	23.86	24.17	21.50	23.11	21.87	23.43	23.74
	3H	23.69	25.14	24.06	25.47	25.83	23.20	24.66	23.58	24.98	25.34
	4H	24.33	25.70	24.73	26.05	26.42	23.83	25.20	24.23	25.55	25.92
	6H	24.79	26.06	25.20	26.42	26.81	24.29	25.56	24.70	25.92	26.31
	8H	24.93	26.14	25.35	26.53	26.93	24.43	25.64	24.86	26.03	26.43
	12H	25.02	26.18	25.45	26.56	26.99	24.51	25.67	24.94	26.05	26.48
4H	2H	22.49	23.86	22.89	24.21	24.58	22.15	23.52	22.55	23.87	24.24
	3H	24.47	25.61	24.88	26.01	26.41	24.07	25.21	24.48	25.61	26.01
	4H	25.25	26.28	25.68	26.70	27.13	24.81	25.85	25.25	26.26	26.70
	6H	25.83	26.74	26.29	27.18	27.63	25.40	26.30	25.85	26.74	27.20
	8H	26.02	26.86	26.48	27.31	27.77	25.58	26.43	26.04	26.87	27.33
	12H	26.15	26.91	26.63	27.39	27.86	25.70	26.46	26.18	26.93	27.40
8H	4H	25.52	26.36	25.98	26.81	27.27	25.14	25.98	25.60	26.42	26.89
	6H	26.22	26.92	26.71	27.41	27.88	25.83	26.53	26.33	27.02	27.50
	8H	26.47	27.10	26.98	27.61	28.10	26.08	26.71	26.59	27.22	27.70
	12H	26.68	27.23	27.18	27.73	28.29	26.26	26.81	26.76	27.31	27.87
12H	4H	25.54	26.30	26.02	26.78	27.25	25.17	25.93	25.65	26.41	26.87
	6H	26.26	26.89	26.77	27.40	27.89	25.89	26.52	26.40	27.03	27.51
	8H	26.57	27.13	27.08	27.62	28.18	26.19	26.75	26.70	27.24	27.80