

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: P243132

Luminaire Tested: S122DRP-H865D930-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243132
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-H865D930-X4F0-XX-UDD-F-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

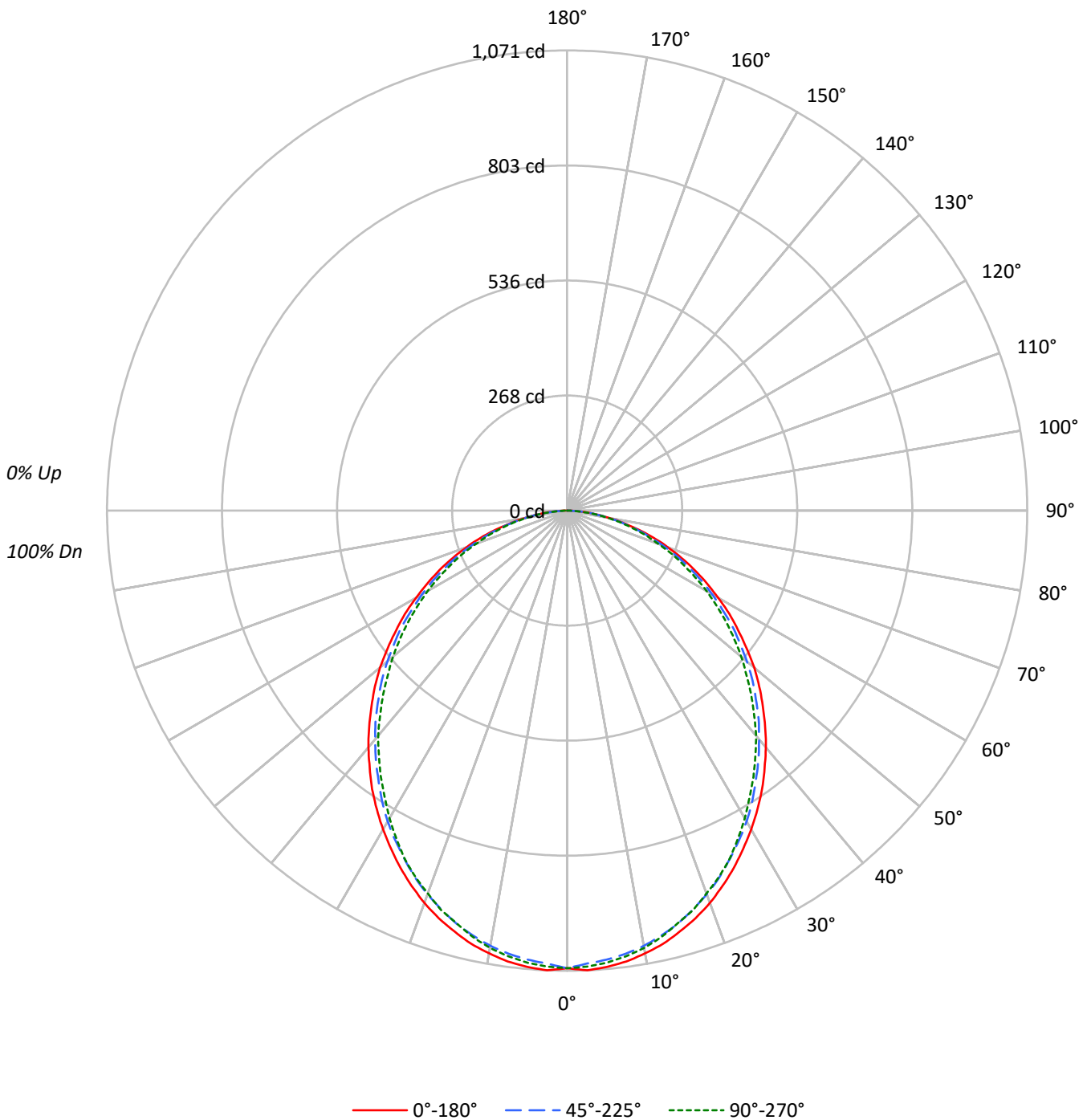
Lumens per Lamp: N/A
Luminaire Lumens: 2710.4 lumens
Efficiency: N/A
Efficacy: 86.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (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	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°	20288	20288	20288
5°	20384	20065	20197
10°	20241	19899	19993
15°	19998	19629	19611
20°	19701	19263	19222
25°	19291	18816	18795
30°	18849	18374	18181
35°	18400	17805	17577
40°	17893	17281	17013
45°	17348	16739	16316
50°	16843	16174	15679
55°	16136	15585	14997
60°	15444	14846	14286
65°	14779	14071	13449
70°	13890	13177	12520
75°	12644	12136	11562
80°	10980	10662	10234
85°	9441	8370	7715

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17348 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.3	3.7
10°-20°	282.3	10.4
20°-30°	415.1	15.3
30°-40°	481.9	17.8
40°-50°	481.3	17.8
50°-60°	419.2	15.5
60°-70°	310.0	11.4
70°-80°	174.7	6.4
80°-90°	45.6	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°	797.6	29.4
0°-40°	1279.6	47.2
0°-60°	2180.0	80.4
0°-90°	2710.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2710.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1065	1065	1065	1065	1065	
5°	1066	1061	1049	1058	1056	101
15°	1014	1009	995	999	994	286
25°	918	910	895	894	894	423
35°	791	782	766	759	756	494
45°	644	637	621	612	606	497
55°	486	482	469	456	452	435
65°	328	323	312	302	298	324
75°	172	171	165	159	157	183
85°	43	41	38	36	35	49
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1065.1	1065.1	1065.1	1065.1	1065.1
2.5°	1071.0	1066.1	1055.3	1064.2	1062.2
5°	1066.1	1061.2	1049.4	1058.3	1056.3
7.5°	1058.3	1053.4	1040.6	1049.4	1046.5
10°	1046.5	1040.6	1028.8	1034.7	1033.7
12.5°	1032.8	1026.9	1013.1	1018.0	1016.1
15°	1014.1	1009.2	995.4	999.4	994.5
17.5°	994.5	986.6	973.8	977.8	974.8
20°	971.9	964.0	950.3	952.3	948.3
22.5°	945.4	937.5	924.8	924.8	922.8
25°	917.9	910.0	895.3	894.3	894.3
27.5°	887.5	880.6	865.9	862.9	861.0
30°	857.0	851.1	835.4	829.5	826.6
32.5°	824.6	816.8	802.1	795.2	790.3
35°	791.3	782.4	765.7	758.9	755.9
37.5°	754.9	746.1	731.4	725.5	719.6
40°	719.6	711.7	695.0	686.2	684.2
42.5°	682.3	674.4	659.7	649.9	644.0
45°	644.0	637.1	621.4	611.6	605.7
47.5°	606.7	598.8	585.1	573.3	565.5
50°	568.4	560.6	545.8	532.1	529.1
52.5°	526.2	521.3	506.6	493.8	489.9
55°	485.9	482.0	469.3	456.5	451.6
57.5°	447.7	442.7	428.0	418.2	412.3
60°	405.4	402.5	389.7	378.9	375.0
62.5°	366.2	362.2	351.4	340.7	335.7
65°	327.9	323.0	312.2	302.4	298.4
67.5°	288.6	283.7	274.9	267.0	263.1
70°	249.4	245.4	236.6	229.7	224.8
72.5°	211.1	207.1	199.3	192.4	191.4
75°	171.8	170.8	164.9	159.0	157.1
77.5°	135.5	134.5	130.6	127.6	125.7
80°	100.1	100.1	97.2	94.2	93.3
82.5°	68.7	69.7	66.8	64.8	64.8
85°	43.2	41.2	38.3	36.3	35.3
87.5°	17.7	14.7	13.7	10.8	9.8
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	21.74	23.35	22.11	23.67	23.98	21.31	22.92	21.68	23.24	23.55
	3H	23.50	24.95	23.87	25.28	25.64	23.01	24.47	23.39	24.79	25.16
	4H	24.14	25.51	24.54	25.86	26.23	23.64	25.01	24.04	25.36	25.73
	6H	24.60	25.87	25.01	26.23	26.62	24.10	25.37	24.51	25.73	26.12
	8H	24.74	25.95	25.16	26.34	26.74	24.24	25.45	24.67	25.84	26.24
	12H	24.83	25.99	25.26	26.37	26.80	24.32	25.48	24.75	25.86	26.29
4H	2H	22.30	23.67	22.70	24.02	24.39	21.96	23.33	22.36	23.68	24.05
	3H	24.28	25.42	24.69	25.82	26.22	23.88	25.02	24.29	25.42	25.82
	4H	25.06	26.09	25.49	26.51	26.94	24.62	25.66	25.06	26.07	26.51
	6H	25.64	26.55	26.10	26.99	27.44	25.21	26.11	25.66	26.55	27.01
	8H	25.83	26.67	26.29	27.12	27.58	25.39	26.24	25.85	26.68	27.14
	12H	25.96	26.72	26.44	27.20	27.67	25.51	26.27	25.99	26.74	27.21
8H	4H	25.33	26.17	25.79	26.62	27.08	24.95	25.79	25.41	26.23	26.70
	6H	26.03	26.73	26.52	27.22	27.70	25.64	26.34	26.14	26.83	27.31
	8H	26.28	26.91	26.79	27.42	27.91	25.89	26.52	26.40	27.03	27.51
	12H	26.49	27.05	27.00	27.54	28.10	26.07	26.63	26.58	27.12	27.68
12H	4H	25.35	26.11	25.83	26.59	27.06	24.98	25.74	25.46	26.22	26.68
	6H	26.07	26.70	26.58	27.21	27.70	25.70	26.33	26.21	26.84	27.32
	8H	26.38	26.94	26.89	27.43	27.99	26.00	26.56	26.51	27.05	27.61