

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: P242257

Luminaire Tested: S122DRP-S675D830-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242257
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-10)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122DRP-S675D830-X4F0-XX-UDD-F-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

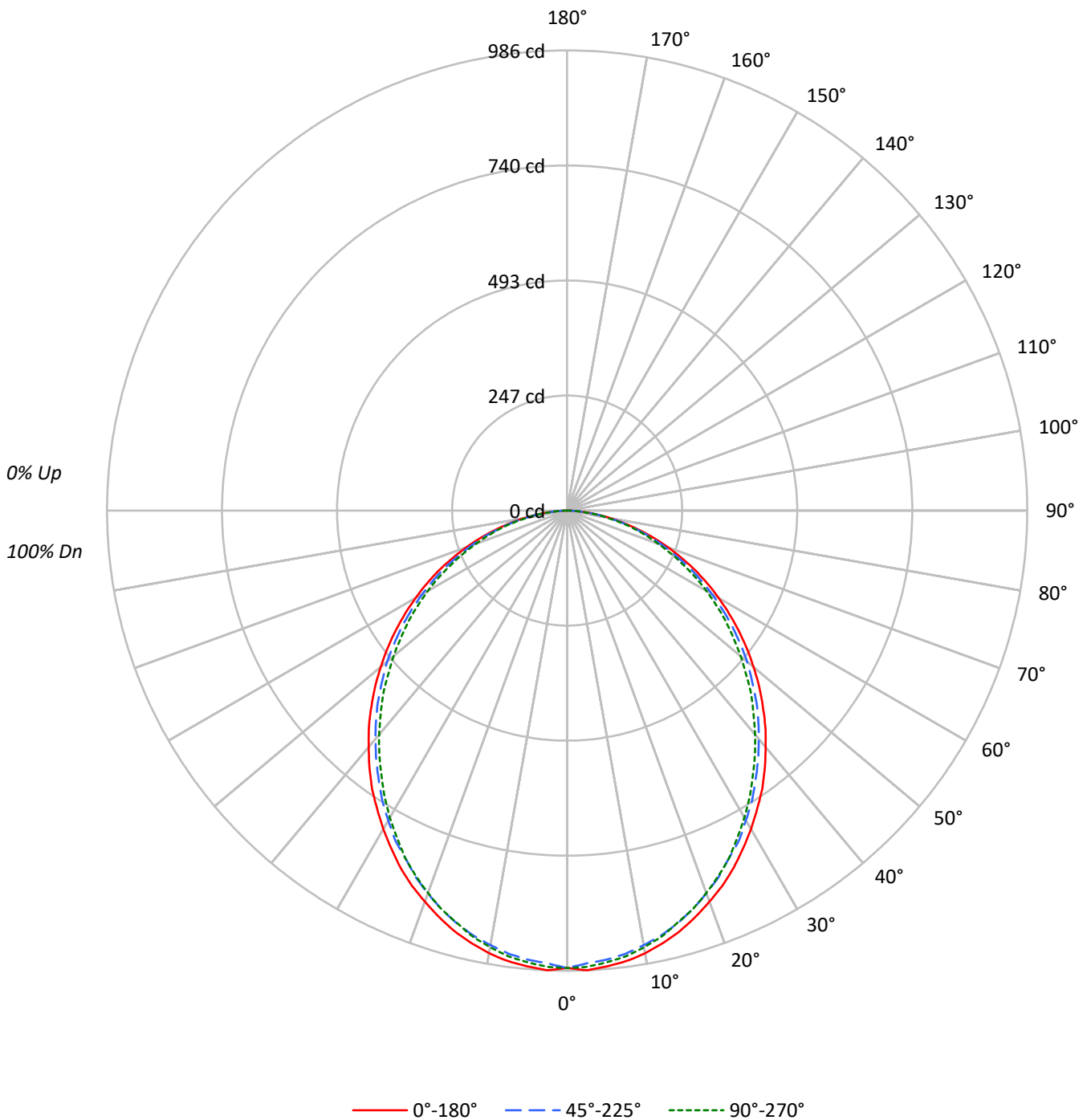
Lumens per Lamp: N/A
Luminaire Lumens: 2493.9 lumens
Efficiency: N/A
Efficacy: 94.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 26.3
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	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	27	38	32	27	37	32	27	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18671	18671	18671
5°	18742	18472	18581
10°	18632	18286	18376
15°	18400	18047	18030
20°	18073	17692	17674
25°	17749	17255	17255
30°	17332	16854	16709
35°	16942	16372	16131
40°	16453	15889	15585
45°	15971	15411	15031
50°	15445	14914	14384
55°	14901	14336	13805
60°	14290	13646	13143
65°	13638	12958	12363
70°	12809	12124	11550
75°	11650	11164	10892
80°	10344	10026	9510
85°	8436	8043	7212

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 15971 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.3	3.7
10°-20°	259.6	10.4
20°-30°	381.5	15.3
30°-40°	443.1	17.8
40°-50°	442.5	17.7
50°-60°	385.9	15.5
60°-70°	285.2	11.4
70°-80°	161.4	6.5
80°-90°	42.6	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°	733.3	29.4
0°-40°	1176.4	47.2
0°-60°	2004.7	80.4
0°-90°	2493.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2493.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	980	980	980	980	980	
5°	980	976	966	974	972	93
15°	933	928	915	919	914	263
25°	844	837	821	823	821	389
35°	729	719	704	698	694	455
45°	593	586	572	562	558	458
55°	449	443	432	420	416	401
65°	303	297	288	279	274	299
75°	158	156	152	146	148	169
85°	39	38	37	34	33	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	980.2	980.2	980.2	980.2	980.2
2.5°	985.9	981.2	970.8	980.2	978.4
5°	980.2	976.5	966.1	973.6	971.8
7.5°	973.6	968.0	957.6	965.2	963.3
10°	963.3	956.7	945.4	952.9	950.1
12.5°	949.1	943.5	932.2	936.9	935.0
15°	933.1	927.5	915.2	919.0	914.3
17.5°	913.3	907.7	895.4	900.1	895.4
20°	891.6	886.0	872.8	875.6	871.9
22.5°	870.0	861.5	849.2	849.2	847.3
25°	844.5	837.0	821.0	822.8	821.0
27.5°	816.2	809.6	797.4	794.6	789.9
30°	788.0	780.4	766.3	763.5	759.7
32.5°	757.8	752.2	737.1	731.4	727.6
35°	728.6	719.2	704.1	698.4	693.7
37.5°	695.6	687.1	672.0	665.4	660.7
40°	661.7	654.1	639.0	630.6	626.8
42.5°	628.7	621.1	606.1	596.6	591.0
45°	592.9	586.3	572.1	561.8	558.0
47.5°	558.0	551.4	536.3	525.9	520.3
50°	521.2	516.5	503.3	490.1	485.4
52.5°	485.4	478.8	466.6	456.2	449.6
55°	448.7	443.0	431.7	420.4	415.7
57.5°	411.9	407.2	394.9	383.6	379.8
60°	375.1	371.4	358.2	347.8	345.0
62.5°	339.3	332.7	323.3	313.9	310.1
65°	302.6	296.9	287.5	279.0	274.3
67.5°	264.9	260.1	251.7	245.1	241.3
70°	230.0	226.2	217.7	211.1	207.4
72.5°	194.2	190.4	185.7	179.1	176.3
75°	158.3	156.5	151.7	146.1	148.0
77.5°	126.3	122.5	120.6	117.8	115.0
80°	94.3	93.3	91.4	88.6	86.7
82.5°	64.1	64.1	63.2	59.4	59.4
85°	38.6	37.7	36.8	33.9	33.0
87.5°	17.0	15.1	13.2	10.4	9.4
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	21.45	23.06	21.82	23.38	23.69	21.01	22.62	21.37	22.93	23.25
	3H	23.20	24.66	23.58	24.98	25.34	22.71	24.17	23.09	24.49	24.85
	4H	23.85	25.22	24.25	25.57	25.94	23.35	24.72	23.75	25.07	25.45
	6H	24.32	25.59	24.73	25.95	26.34	23.82	25.08	24.23	25.45	25.84
	8H	24.46	25.67	24.89	26.06	26.46	23.96	25.17	24.38	25.56	25.96
	12H	24.55	25.71	24.98	26.09	26.52	24.04	25.20	24.47	25.58	26.01
4H	2H	22.01	23.38	22.41	23.73	24.11	21.66	23.03	22.06	23.38	23.75
	3H	23.99	25.13	24.40	25.53	25.93	23.58	24.73	23.99	25.12	25.52
	4H	24.76	25.80	25.20	26.21	26.65	24.34	25.38	24.77	25.79	26.23
	6H	25.36	26.27	25.81	26.71	27.16	24.93	25.83	25.38	26.27	26.73
	8H	25.55	26.40	26.01	26.84	27.30	25.11	25.96	25.57	26.40	26.87
	12H	25.68	26.44	26.16	26.92	27.39	25.23	25.99	25.71	26.47	26.93
8H	4H	25.04	25.88	25.50	26.33	26.79	24.66	25.51	25.12	25.95	26.42
	6H	25.75	26.45	26.25	26.94	27.42	25.37	26.07	25.86	26.56	27.04
	8H	26.01	26.64	26.52	27.15	27.63	25.62	26.25	26.13	26.76	27.24
	12H	26.21	26.77	26.72	27.26	27.82	25.80	26.36	26.30	26.85	27.41
12H	4H	25.06	25.82	25.54	26.30	26.77	24.70	25.46	25.18	25.93	26.40
	6H	25.80	26.43	26.31	26.94	27.42	25.43	26.06	25.94	26.57	27.05
	8H	26.11	26.67	26.62	27.16	27.72	25.73	26.29	26.24	26.78	27.34