

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: P243136

Luminaire Tested: S122DRP-H675D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243136
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-H675D935-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

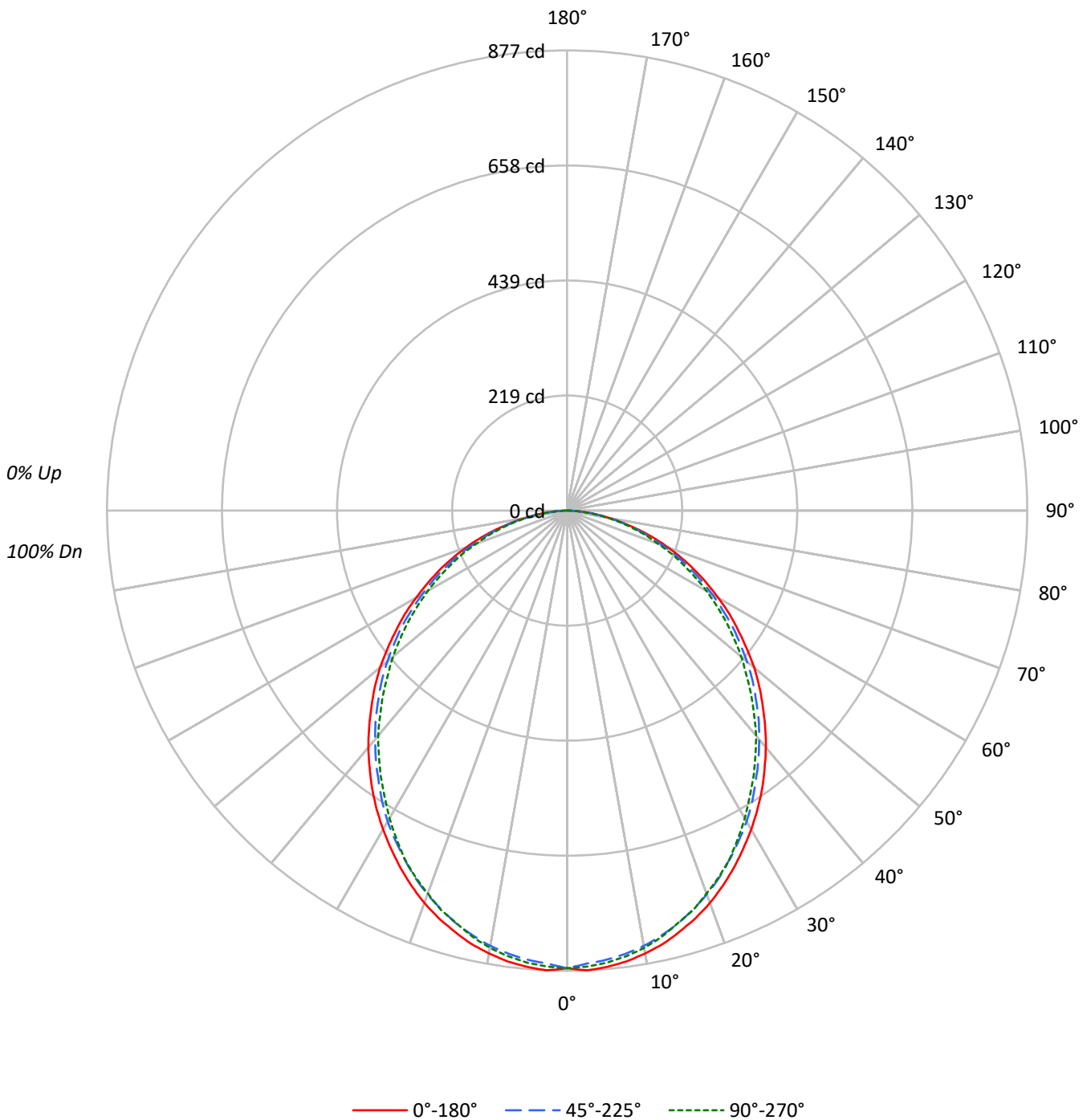
Lumens per Lamp: N/A
Luminaire Lumens: 2219.5 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	16613	16613	16613
5°	16692	16432	16539
10°	16576	16295	16373
15°	16375	16075	16058
20°	16133	15774	15742
25°	15796	15410	15393
30°	15436	15046	14888
35°	15066	14580	14394
40°	14653	14153	13932
45°	14207	13709	13361
50°	13794	13246	12840
55°	13214	12762	12281
60°	12648	12156	11699
65°	12101	11520	11015
70°	11372	10787	10253
75°	10355	9943	9464
80°	8995	8731	8380
85°	7737	6862	6316

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 14207 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.1	3.7
10°-20°	231.2	10.4
20°-30°	339.9	15.3
30°-40°	394.7	17.8
40°-50°	394.1	17.8
50°-60°	343.3	15.5
60°-70°	253.9	11.4
70°-80°	143.1	6.4
80°-90°	37.3	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°	653.2	29.4
0°-40°	1047.8	47.2
0°-60°	1785.2	80.4
0°-90°	2219.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2219.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	872	872	872	872	872	
5°	873	869	859	867	865	83
15°	830	826	815	818	814	234
25°	752	745	733	732	732	346
35°	648	641	627	621	619	405
45°	527	522	509	501	496	407
55°	398	395	384	374	370	356
65°	268	264	256	248	244	265
75°	141	140	135	130	129	150
85°	35	34	31	30	29	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	872.2	872.2	872.2	872.2	872.2
2.5°	877.1	873.0	864.2	871.4	869.8
5°	873.0	869.0	859.4	866.6	865.0
7.5°	866.6	862.6	852.1	859.4	857.0
10°	857.0	852.1	842.5	847.3	846.5
12.5°	845.7	840.9	829.6	833.6	832.0
15°	830.4	826.4	815.2	818.4	814.3
17.5°	814.3	807.9	797.5	800.7	798.3
20°	795.9	789.4	778.2	779.8	776.6
22.5°	774.2	767.7	757.3	757.3	755.7
25°	751.6	745.2	733.2	732.4	732.4
27.5°	726.7	721.1	709.0	706.6	705.0
30°	701.8	697.0	684.1	679.3	676.9
32.5°	675.3	668.8	656.8	651.2	647.1
35°	647.9	640.7	627.0	621.4	619.0
37.5°	618.2	611.0	598.9	594.1	589.3
40°	589.3	582.8	569.2	561.9	560.3
42.5°	558.7	552.3	540.2	532.2	527.4
45°	527.4	521.7	508.9	500.8	496.0
47.5°	496.8	490.4	479.1	469.5	463.0
50°	465.5	459.0	447.0	435.7	433.3
52.5°	430.9	426.9	414.8	404.4	401.1
55°	397.9	394.7	384.3	373.8	369.8
57.5°	366.6	362.6	350.5	342.5	337.6
60°	332.0	329.6	319.1	310.3	307.1
62.5°	299.9	296.6	287.8	279.0	274.9
65°	268.5	264.5	255.6	247.6	244.4
67.5°	236.3	232.3	225.1	218.7	215.4
70°	204.2	201.0	193.7	188.1	184.1
72.5°	172.8	169.6	163.2	157.6	156.8
75°	140.7	139.9	135.1	130.2	128.6
77.5°	110.9	110.1	106.9	104.5	102.9
80°	82.0	82.0	79.6	77.2	76.4
82.5°	56.3	57.1	54.7	53.1	53.1
85°	35.4	33.8	31.4	29.7	28.9
87.5°	14.5	12.1	11.3	8.8	8.0
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	22.66	21.41	22.97	23.29	20.62	22.23	20.98	22.54	22.86
	3H	22.80	24.26	23.18	24.58	24.94	22.32	23.77	22.70	24.10	24.46
	4H	23.45	24.82	23.85	25.16	25.54	22.95	24.31	23.34	24.66	25.04
	6H	23.91	25.17	24.32	25.54	25.93	23.41	24.68	23.82	25.04	25.43
	8H	24.04	25.25	24.47	25.64	26.04	23.55	24.76	23.97	25.15	25.55
	12H	24.14	25.30	24.57	25.68	26.11	23.63	24.79	24.06	25.17	25.60
4H	2H	21.61	22.98	22.01	23.32	23.70	21.27	22.64	21.67	22.98	23.36
	3H	23.58	24.73	23.99	25.13	25.53	23.18	24.33	23.59	24.73	25.13
	4H	24.36	25.40	24.79	25.81	26.25	23.93	24.97	24.36	25.38	25.82
	6H	24.95	25.85	25.40	26.29	26.75	24.51	25.42	24.97	25.86	26.31
	8H	25.13	25.98	25.59	26.42	26.89	24.70	25.54	25.16	25.99	26.45
	12H	25.27	26.03	25.75	26.50	26.97	24.81	25.57	25.29	26.05	26.52
8H	4H	24.63	25.48	25.09	25.92	26.39	24.25	25.10	24.71	25.54	26.01
	6H	25.34	26.04	25.83	26.53	27.00	24.95	25.65	25.44	26.14	26.61
	8H	25.59	26.22	26.10	26.73	27.21	25.20	25.83	25.71	26.33	26.82
	12H	25.79	26.35	26.30	26.84	27.40	25.37	25.93	25.88	26.42	26.98
12H	4H	24.66	25.42	25.14	25.89	26.36	24.29	25.05	24.77	25.52	25.99
	6H	25.38	26.01	25.89	26.52	27.00	25.00	25.64	25.51	26.14	26.63
	8H	25.69	26.24	26.19	26.73	27.30	25.31	25.86	25.81	26.36	26.92