

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: P242725

Luminaire Tested: S124RDRP-S1195D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242725
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S1195D935-X4F0-XX-UDD-F-W
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

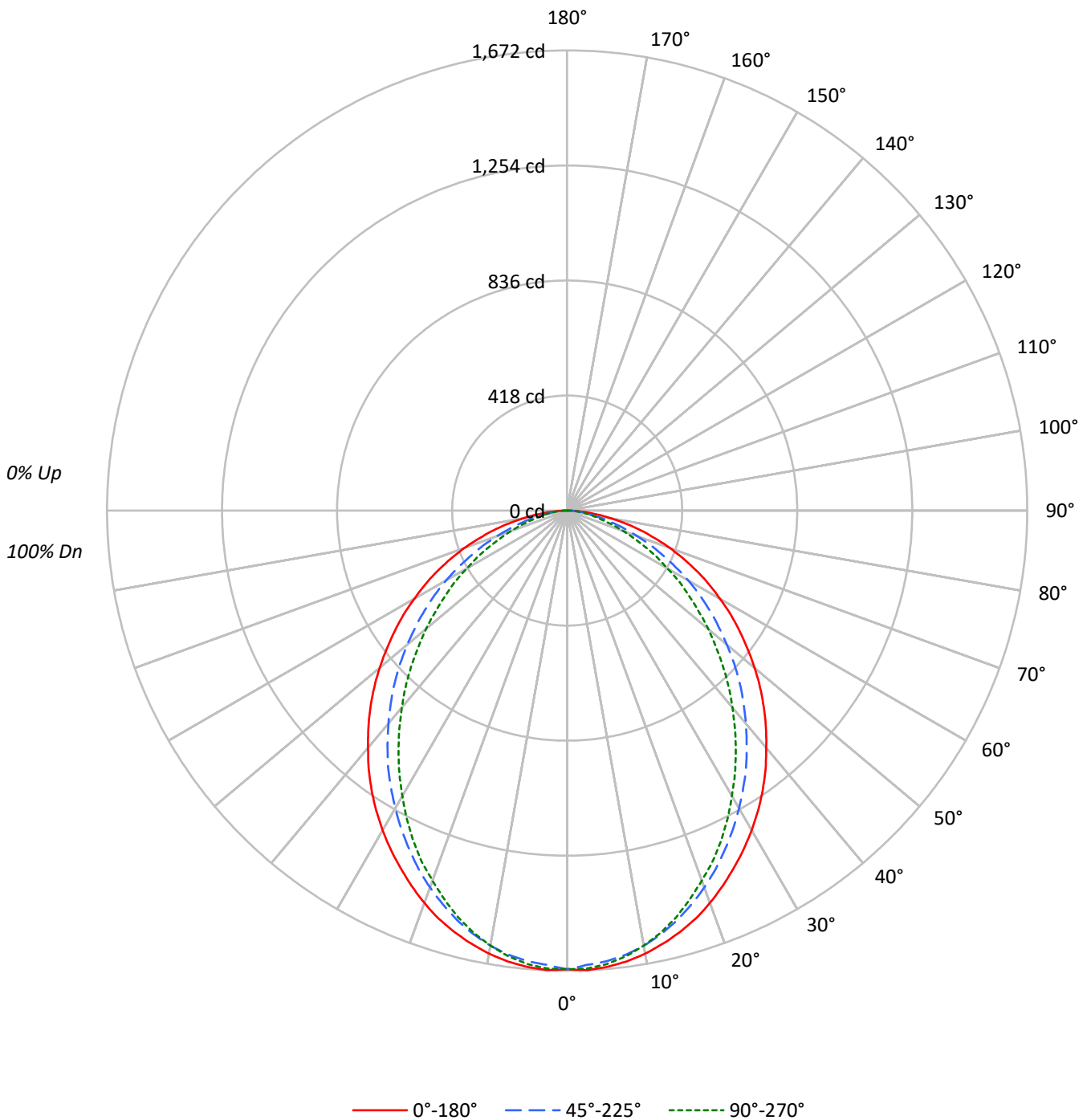
Lumens per Lamp: N/A
Luminaire Lumens: 3850.8 lumens
Efficiency: N/A
Efficacy: 93.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 41.1
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	74
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49
6	72	59	51	45	70	58	50	44	57	49	44	55	49	44	53	48	43
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39
8	63	50	41	36	61	49	41	36	48	40	35	46	40	35	45	39	35
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32
10	55	42	35	29	54	42	34	29	41	34	29	40	33	29	39	33	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14813	14813	14813
5°	14848	14666	14757
10°	14754	14489	14489
15°	14585	14186	14080
20°	14352	13785	13532
25°	14055	13316	12979
30°	13765	12823	12286
35°	13446	12310	11590
40°	13060	11727	10839
45°	12704	11149	10074
50°	12299	10482	9264
55°	11865	9790	8386
60°	11388	9029	7486
65°	10950	8079	6602
70°	10315	7030	5606
75°	9510	5828	4557
80°	8298	4443	4182
85°	7027	4039	3774

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 12704 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	156.7	4.1
10°-20°	436.9	11.3
20°-30°	630.8	16.4
30°-40°	714.9	18.6
40°-50°	690.3	17.9
50°-60°	573.9	14.9
60°-70°	396.1	10.3
70°-80°	200.2	5.2
80°-90°	50.8	1.3
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°	1224.5	31.8
0°-40°	1939.4	50.4
0°-60°	3203.6	83.2
0°-90°	3850.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3850.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1666	1666	1666	1666	1666	
5°	1664	1659	1644	1656	1654	158
15°	1585	1573	1542	1539	1530	447
25°	1433	1410	1358	1336	1323	660
35°	1239	1198	1134	1091	1068	774
45°	1011	963	887	824	801	779
55°	766	715	632	565	541	685
65°	521	466	384	329	314	514
75°	277	230	170	140	133	292
85°	69	43	40	37	37	80
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1666.5	1666.5	1666.5	1666.5	1666.5
2.5°	1671.6	1666.5	1652.5	1666.5	1665.3
5°	1664.0	1658.9	1643.6	1656.3	1653.8
7.5°	1652.5	1647.4	1628.3	1637.2	1633.4
10°	1634.6	1628.3	1605.3	1610.4	1605.3
12.5°	1611.7	1604.0	1575.9	1578.5	1570.8
15°	1584.9	1573.4	1541.5	1538.9	1530.0
17.5°	1554.3	1537.7	1500.7	1494.3	1481.5
20°	1517.2	1500.7	1457.3	1447.1	1430.5
22.5°	1476.4	1457.3	1410.1	1393.5	1380.7
25°	1433.0	1410.1	1357.7	1336.0	1323.3
27.5°	1388.4	1360.3	1305.4	1279.9	1262.0
30°	1341.1	1309.2	1249.3	1217.4	1197.0
32.5°	1291.4	1254.4	1191.8	1153.6	1134.4
35°	1239.1	1198.2	1134.4	1091.0	1068.1
37.5°	1184.2	1142.1	1071.9	1024.7	1001.7
40°	1125.5	1083.4	1010.6	957.1	934.1
42.5°	1069.3	1024.7	948.1	893.2	869.0
45°	1010.6	963.4	886.9	824.3	801.4
47.5°	950.7	902.2	823.1	758.0	732.5
50°	889.4	839.7	758.0	694.2	669.9
52.5°	826.9	778.4	694.2	629.1	603.6
55°	765.6	714.6	631.7	565.3	541.1
57.5°	705.7	652.1	570.4	502.8	484.9
60°	640.6	589.5	507.9	441.5	421.1
62.5°	581.9	528.3	444.1	384.1	368.8
65°	520.6	465.8	384.1	329.2	313.9
67.5°	456.8	404.5	327.9	279.5	261.6
70°	396.9	343.3	270.5	228.4	215.7
72.5°	333.1	285.8	218.2	183.8	172.3
75°	276.9	229.7	169.7	140.4	132.7
77.5°	218.2	177.4	126.3	105.9	103.4
80°	162.1	125.1	86.8	82.9	81.7
82.5°	113.6	80.4	62.5	60.0	58.7
85°	68.9	43.4	39.6	37.0	37.0
87.5°	29.3	19.1	17.9	16.6	17.9
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	20.71	22.27	21.07	22.59	22.90	18.74	20.31	19.10	20.62	20.93
	3H	22.48	23.89	22.86	24.22	24.58	19.99	21.40	20.37	21.73	22.09
	4H	23.14	24.46	23.54	24.81	25.19	20.37	21.69	20.77	22.04	22.42
	6H	23.62	24.84	24.03	25.21	25.60	20.63	21.86	21.04	22.22	22.61
	8H	23.76	24.93	24.19	25.32	25.72	20.72	21.89	21.15	22.28	22.68
	12H	23.86	24.98	24.29	25.36	25.79	20.79	21.91	21.22	22.29	22.72
4H	2H	21.05	22.37	21.44	22.72	23.09	19.43	20.76	19.83	21.11	21.48
	3H	23.01	24.11	23.42	24.51	24.91	20.87	21.97	21.28	22.37	22.77
	4H	23.79	24.79	24.23	25.20	25.64	21.32	22.31	21.75	22.73	23.17
	6H	24.39	25.26	24.85	25.70	26.16	21.67	22.54	22.13	22.98	23.44
	8H	24.58	25.39	25.05	25.83	26.30	21.80	22.61	22.26	23.05	23.52
	12H	24.72	25.45	25.20	25.92	26.39	21.90	22.62	22.38	23.10	23.57
8H	4H	23.89	24.70	24.35	25.14	25.61	21.64	22.45	22.10	22.89	23.35
	6H	24.56	25.23	25.06	25.72	26.20	22.07	22.74	22.56	23.23	23.70
	8H	24.80	25.40	25.31	25.91	26.40	22.25	22.85	22.76	23.36	23.84
	12H	25.00	25.53	25.51	26.02	26.58	22.40	22.93	22.91	23.43	23.99
12H	4H	23.88	24.60	24.36	25.08	25.55	21.68	22.40	22.16	22.88	23.35
	6H	24.55	25.15	25.06	25.66	26.15	22.12	22.72	22.63	23.23	23.72
	8H	24.83	25.36	25.34	25.85	26.42	22.35	22.88	22.86	23.37	23.93