

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: G3-1802-639-65

Luminaire Tested: S124RDRP-H795D835-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: G3-1802-639-65
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-H795D835-X4F0-XX-UDD-F-W
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

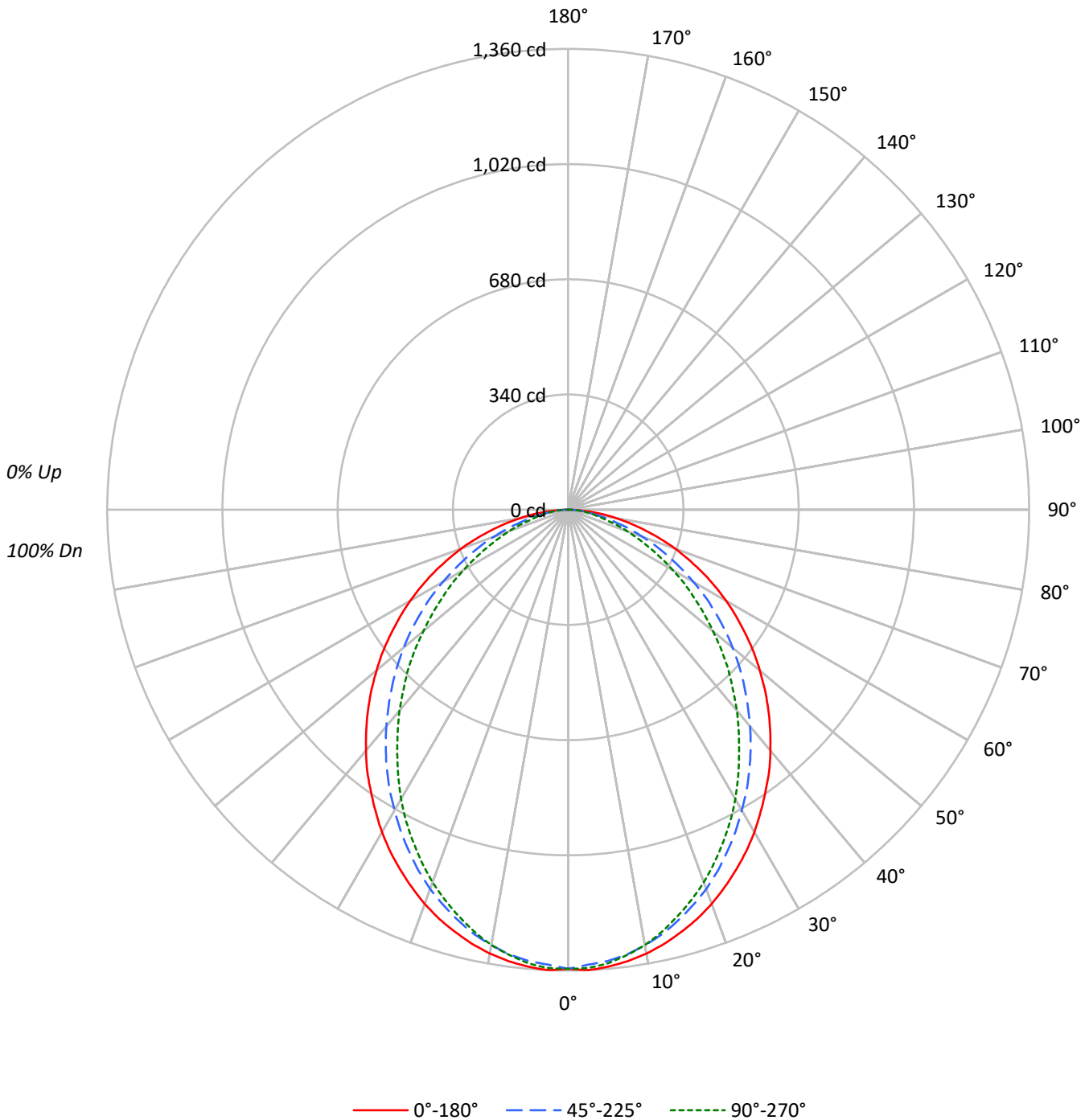
Lumens per Lamp: N/A
Luminaire Lumens: 3195.2 lumens
Efficiency: N/A
Efficacy: 124.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.1 / 1.25
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 25.6
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	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	49	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11980	11980	11980
5°	12017	11866	11928
10°	11940	11716	11716
15°	11808	11487	11378
20°	11648	11206	11008
25°	11433	10848	10555
30°	11220	10454	10066
35°	10955	10070	9487
40°	10711	9637	8933
45°	10441	9178	8352
50°	10151	8707	7675
55°	9834	8170	6998
60°	9531	7551	6295
65°	9121	6820	5502
70°	8686	6023	4782
75°	8028	5022	3894
80°	7332	3920	3564
85°	6492	3753	3551

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 10441 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.4	4.0
10°-20°	355.9	11.1
20°-30°	516.1	16.2
30°-40°	588.2	18.4
40°-50°	572.3	17.9
50°-60°	480.7	15.0
60°-70°	334.9	10.5
70°-80°	172.9	5.4
80°-90°	46.8	1.5
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°	999.4	31.3
0°-40°	1587.6	49.7
0°-60°	2640.6	82.6
0°-90°	3195.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3195.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1355	1355	1355	1355	1355	
5°	1354	1350	1337	1347	1344	128
15°	1290	1280	1255	1253	1243	364
25°	1172	1150	1112	1096	1082	540
35°	1015	984	933	898	879	635
45°	835	795	734	687	668	644
55°	638	597	530	476	454	571
65°	436	394	326	279	263	432
75°	235	199	147	123	114	250
85°	64	41	37	35	35	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1355	1355	1355	1355	1355
2.5°	1360	1356	1344	1355	1354
5°	1354	1350	1337	1347	1344
7.5°	1344	1339	1324	1331	1326
10°	1330	1325	1305	1310	1305
12.5°	1312	1305	1283	1284	1276
15°	1290	1280	1255	1253	1243
17.5°	1266	1253	1224	1219	1208
20°	1238	1222	1191	1180	1170
22.5°	1206	1187	1153	1140	1127
25°	1172	1150	1112	1096	1082
27.5°	1137	1111	1070	1050	1036
30°	1099	1069	1024	1001	986
32.5°	1057	1027	980	952	933
35°	1015	984	933	898	879
37.5°	974	939	884	848	826
40°	928	891	835	794	774
42.5°	882	844	784	741	719
45°	835	795	734	687	668
47.5°	787	747	684	635	613
50°	738	698	633	579	558
52.5°	690	648	583	528	506
55°	638	597	530	476	454
57.5°	588	545	480	425	407
60°	539	496	427	374	356
62.5°	487	444	376	325	309
65°	436	394	326	279	263
67.5°	384	346	280	235	222
70°	336	293	233	194	185
72.5°	285	247	189	157	150
75°	235	199	147	123	114
77.5°	189	154	111	91	91
80°	144	113	77	72	70
82.5°	102	73	57	53	52
85°	64	41	37	35	35
87.5°	31	19	19	18	18
90°	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	20.08	21.65	20.44	21.97	22.28	18.18	19.76	18.55	20.07	20.39
	3H	21.89	23.31	22.27	23.64	24.00	19.44	20.86	19.82	21.19	21.55
	4H	22.58	23.91	22.98	24.26	24.64	19.84	21.17	20.24	21.52	21.90
	6H	23.09	24.33	23.50	24.69	25.08	20.12	21.35	20.53	21.72	22.11
	8H	23.26	24.44	23.69	24.83	25.23	20.22	21.40	20.65	21.79	22.19
	12H	23.38	24.51	23.81	24.89	25.32	20.30	21.43	20.73	21.81	22.24
4H	2H	20.43	21.76	20.83	22.11	22.49	18.88	20.22	19.28	20.57	20.94
	3H	22.45	23.56	22.86	23.96	24.36	20.34	21.45	20.75	21.84	22.25
	4H	23.26	24.26	23.69	24.68	25.11	20.81	21.82	21.25	22.23	22.67
	6H	23.90	24.77	24.36	25.22	25.67	21.18	22.05	21.63	22.49	22.95
	8H	24.12	24.93	24.58	25.38	25.84	21.32	22.13	21.78	22.58	23.04
	12H	24.28	25.02	24.76	25.49	25.96	21.43	22.17	21.91	22.64	23.11
8H	4H	23.37	24.18	23.83	24.63	25.09	21.15	21.96	21.61	22.41	22.87
	6H	24.09	24.77	24.59	25.26	25.73	21.60	22.27	22.09	22.76	23.24
	8H	24.36	24.97	24.87	25.48	25.97	21.79	22.40	22.30	22.91	23.39
	12H	24.59	25.13	25.10	25.62	26.18	21.98	22.51	22.48	23.00	23.57
12H	4H	23.36	24.09	23.84	24.57	25.04	21.19	21.92	21.67	22.40	22.87
	6H	24.08	24.69	24.59	25.20	25.69	21.66	22.27	22.17	22.78	23.26
	8H	24.40	24.94	24.91	25.43	25.99	21.91	22.44	22.42	22.94	23.50