

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: P242798

Luminaire Tested: S125DRP-S1090D940-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242798
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-12)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S1090D940-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

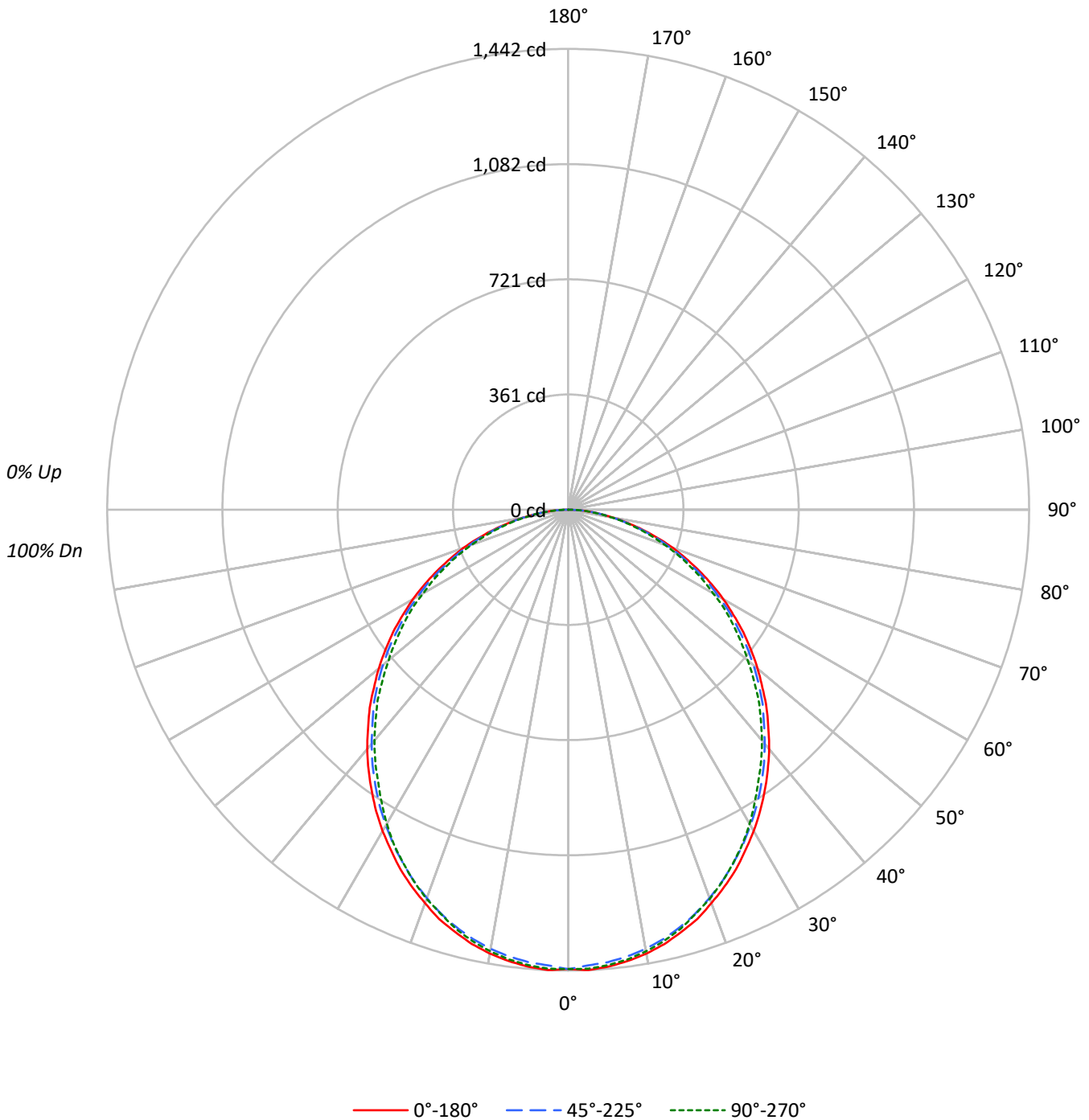
Lumens per Lamp: N/A
Luminaire Lumens: 3741.1 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 34.8
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	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	94	92	94	91	89	90	88	86	84					84			
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70					70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59					59			
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51					51			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44					44			
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39					39			
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34					34			
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28					28			
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10216	10216	10216
5°	10239	10141	10206
10°	10177	10070	10127
15°	10066	9949	9991
20°	9908	9779	9796
25°	9738	9578	9569
30°	9528	9361	9314
35°	9304	9127	8998
40°	9073	8873	8746
45°	8824	8641	8469
50°	8550	8361	8110
55°	8285	8046	7820
60°	7969	7727	7451
65°	7591	7344	7095
70°	7232	6899	6664
75°	6588	6371	6151
80°	5865	5771	5632
85°	5097	5195	4917

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8824 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.6	3.6
10°-20°	383.1	10.2
20°-30°	565.6	15.1
30°-40°	659.9	17.6
40°-50°	662.8	17.7
50°-60°	581.8	15.6
60°-70°	433.4	11.6
70°-80°	247.5	6.6
80°-90°	71.5	1.9
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°	1084.4	29.0
0°-40°	1744.3	46.6
0°-60°	2988.8	79.9
0°-90°	3741.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3741.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1437	1437	1437	1437	1437	
5°	1435	1433	1421	1432	1430	136
15°	1368	1365	1352	1358	1358	386
25°	1242	1236	1221	1224	1220	571
35°	1072	1068	1052	1046	1037	671
45°	878	873	860	846	843	676
55°	669	665	649	639	631	597
65°	451	449	437	426	422	448
75°	240	238	232	229	224	255
85°	62	64	64	62	60	73
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1437.4	1437.4	1437.4	1437.4	1437.4
2.5°	1441.9	1438.5	1427.1	1438.5	1437.4
5°	1435.1	1432.8	1421.4	1431.7	1430.5
7.5°	1424.8	1422.6	1410.1	1420.3	1419.2
10°	1410.1	1407.8	1395.3	1404.4	1403.2
12.5°	1391.9	1387.3	1376.0	1382.8	1382.8
15°	1368.0	1364.6	1352.1	1357.8	1357.8
17.5°	1343.0	1337.3	1324.8	1331.6	1325.9
20°	1310.0	1307.7	1292.9	1300.9	1295.2
22.5°	1277.0	1272.5	1258.8	1263.4	1260.0
25°	1241.8	1236.1	1221.3	1223.6	1220.2
27.5°	1200.8	1197.4	1182.6	1183.8	1180.4
30°	1161.0	1157.6	1140.6	1138.3	1134.9
32.5°	1117.8	1112.1	1097.4	1092.8	1086.0
35°	1072.3	1067.8	1051.9	1046.2	1037.1
37.5°	1025.7	1020.0	1005.2	997.3	991.6
40°	977.9	972.3	956.3	946.1	942.7
42.5°	926.8	922.2	906.3	897.2	891.5
45°	877.9	873.3	859.7	846.0	842.6
47.5°	824.4	825.6	808.5	794.9	786.9
50°	773.3	769.9	756.2	741.4	733.5
52.5°	721.0	718.7	703.9	691.4	682.3
55°	668.6	665.2	649.3	639.1	631.1
57.5°	612.9	611.8	598.1	584.5	581.1
60°	560.6	556.1	543.6	532.2	524.2
62.5°	506.0	502.6	492.4	479.9	474.2
65°	451.4	449.2	436.7	426.4	421.9
67.5°	398.0	393.5	384.4	375.3	373.0
70°	348.0	342.3	332.0	325.2	320.7
72.5°	293.4	290.0	284.3	276.3	271.8
75°	239.9	237.7	232.0	228.6	224.0
77.5°	189.9	188.8	185.4	183.1	179.7
80°	143.3	143.3	141.0	139.9	137.6
82.5°	102.3	100.1	100.1	97.8	97.8
85°	62.5	63.7	63.7	62.5	60.3
87.5°	30.7	30.7	29.6	29.6	27.3
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	19.42	21.04	19.79	21.36	21.67	19.10	20.71	19.46	21.03	21.34
	3H	21.19	22.66	21.57	22.98	23.34	20.83	22.29	21.20	22.62	22.98
	4H	21.85	23.23	22.25	23.58	23.95	21.47	22.85	21.87	23.20	23.57
	6H	22.33	23.60	22.74	23.97	24.36	21.96	23.24	22.37	23.60	23.99
	8H	22.48	23.70	22.91	24.09	24.49	22.12	23.34	22.55	23.73	24.13
	12H	22.59	23.76	23.02	24.14	24.57	22.23	23.40	22.66	23.78	24.21
4H	2H	20.00	21.38	20.40	21.73	22.10	19.74	21.12	20.14	21.47	21.84
	3H	22.00	23.15	22.41	23.55	23.95	21.69	22.85	22.10	23.25	23.65
	4H	22.78	23.83	23.22	24.24	24.68	22.47	23.51	22.90	23.93	24.36
	6H	23.39	24.30	23.85	24.75	25.20	23.08	24.00	23.54	24.44	24.89
	8H	23.60	24.45	24.06	24.89	25.36	23.29	24.15	23.75	24.59	25.05
	12H	23.75	24.52	24.23	24.99	25.46	23.45	24.22	23.93	24.69	25.16
8H	4H	23.07	23.92	23.53	24.37	24.83	22.79	23.65	23.25	24.09	24.55
	6H	23.80	24.51	24.29	25.00	25.47	23.53	24.24	24.03	24.73	25.21
	8H	24.08	24.72	24.59	25.22	25.71	23.82	24.45	24.32	24.96	25.45
	12H	24.31	24.87	24.82	25.36	25.92	24.05	24.61	24.56	25.10	25.66
12H	4H	23.10	23.87	23.58	24.34	24.81	22.83	23.60	23.31	24.07	24.54
	6H	23.85	24.49	24.36	25.00	25.48	23.59	24.23	24.10	24.74	25.22
	8H	24.19	24.75	24.70	25.24	25.80	23.94	24.50	24.44	24.99	25.55