

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P243658

Luminaire Tested: **S125DR-H1090D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243658  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-51)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DR-H1090D940-X4F0-XX-UDD-F-W  
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3777.7 lumens  
Efficiency: N/A  
Efficacy: 119.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
CIE Type: Direct

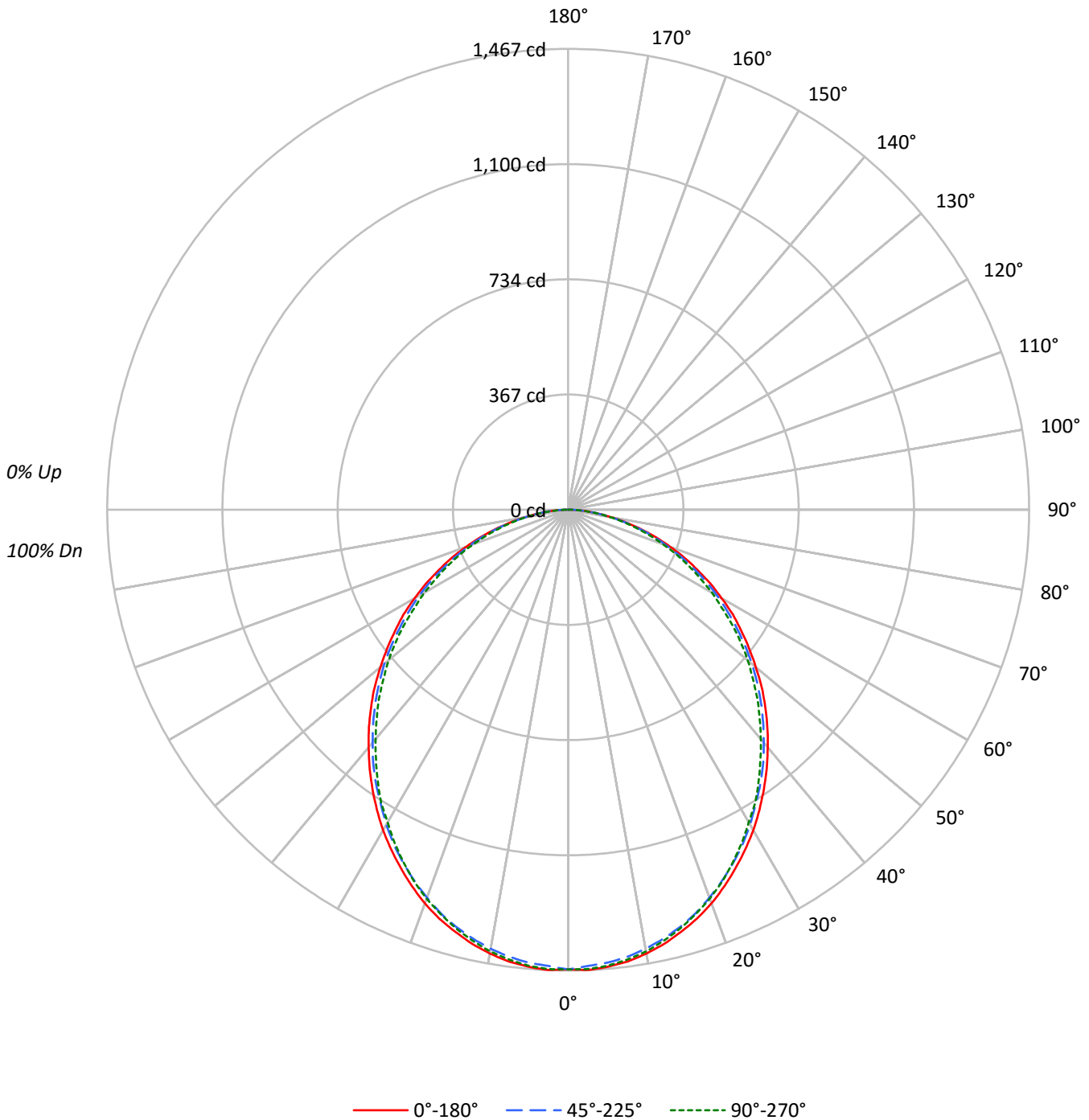
Input Watts (W): 31.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	95	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	73	70					70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60					60			
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51					51			
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44					44			
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39					39			
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35					35			
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28					28			
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25					25			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	10402	10402	10402
5°	10418	10326	10395
10°	10353	10244	10306
15°	10231	10120	10152
20°	10086	9940	9964
25°	9877	9734	9717
30°	9667	9499	9429
35°	9418	9251	9167
40°	9165	8986	8847
45°	8914	8721	8559
50°	8619	8441	8251
55°	8328	8103	7890
60°	8013	7784	7510
65°	7638	7368	7114
70°	7163	6895	6671
75°	6604	6398	6105
80°	5759	5714	5583
85°	4991	4991	4730



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.1	3.7
10°-20°	389.6	10.3
20°-30°	574.3	15.2
30°-40°	668.9	17.7
40°-50°	670.2	17.7
50°-60°	585.9	15.5
60°-70°	434.8	11.5
70°-80°	246.6	6.5
80°-90°	69.2	1.8
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°	1102.0	29.2
0°-40°	1770.9	46.9
0°-60°	3027.0	80.1
0°-90°	3777.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3777.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1464	1464	1464	1464	1464	
5°	1460	1458	1447	1458	1457	139
15°	1390	1388	1375	1383	1380	392
25°	1260	1255	1241	1244	1239	580
35°	1086	1079	1066	1060	1056	679
45°	887	885	868	855	852	684
55°	672	671	654	640	637	602
65°	454	451	438	428	423	450
75°	240	236	233	229	222	255
85°	61	61	61	59	58	71
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1463.5	1463.5	1463.5	1463.5	1463.5
2.5°	1466.7	1464.5	1453.8	1464.5	1463.5
5°	1460.2	1458.1	1447.4	1458.1	1457.0
7.5°	1450.6	1447.4	1435.6	1446.3	1444.1
10°	1434.5	1432.3	1419.4	1428.0	1428.0
12.5°	1415.1	1411.9	1399.0	1406.6	1405.5
15°	1390.5	1388.3	1375.4	1382.9	1379.7
17.5°	1364.7	1359.3	1347.5	1353.9	1349.7
20°	1333.5	1329.3	1314.2	1319.6	1317.4
22.5°	1298.1	1292.7	1278.8	1282.0	1280.9
25°	1259.5	1255.2	1241.2	1244.4	1239.1
27.5°	1219.7	1214.4	1201.5	1201.5	1196.1
30°	1177.9	1172.5	1157.5	1157.5	1148.9
32.5°	1132.8	1128.5	1110.2	1109.1	1107.0
35°	1085.5	1079.1	1066.2	1059.8	1056.5
37.5°	1038.3	1032.9	1019.0	1010.4	1005.0
40°	987.8	984.6	968.5	961.0	953.5
42.5°	938.4	935.2	918.0	905.1	901.9
45°	886.9	884.7	867.6	854.7	851.5
47.5°	835.3	833.2	816.0	802.1	796.7
50°	779.5	779.5	763.4	749.4	746.2
52.5°	725.8	724.8	708.6	694.7	691.5
55°	672.1	671.1	653.9	639.9	636.7
57.5°	621.7	615.2	600.2	589.5	578.7
60°	563.7	560.5	547.6	533.6	528.3
62.5°	510.0	505.7	492.8	481.0	473.5
65°	454.2	451.0	438.1	428.4	423.0
67.5°	401.6	397.3	384.4	376.9	372.6
70°	344.7	341.4	331.8	322.1	321.0
72.5°	294.2	289.9	284.5	275.9	271.6
75°	240.5	236.2	233.0	228.7	222.3
77.5°	189.0	186.8	184.7	181.5	178.2
80°	140.7	140.7	139.6	137.4	136.4
82.5°	99.9	100.9	97.7	95.6	95.6
85°	61.2	61.2	61.2	59.1	58.0
87.5°	30.1	26.8	26.8	24.7	24.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)